Gordon Crandall

Gordon Crandall
B.Y.U. 1926-27

THE FINANCIAL POLICY OF CORPORATIONS

BY

ARTHUR STONE DEWING

ASSOCIATE PROFESSOR OF FINANCE, HARVARD UNIVERSITY

REVISED EDITION

THE RONALD PRESS COMPANY
NEW YORK

Copyright, 1919, by
The Ronald Press Company

Copyright, 1920, by
The Ronald Press Company

Copyright, 1926, by
The Ronald Press Company

All Rights Reserved

a monument in the school
of [illegible]

TO

WILLIAM Z. RIPLEY

Digitized by the Internet Archive
in 2022 with funding from
Kahle/Austin Foundation

https://archive.org/details/financialpolicyo0000arth

PREFACE

This book is a study of the financial structure and the financial problems of large business corporations. The corporation has been gradually called upon to assume the operation of those business enterprises which require considerable capital and skill of management but which are not comprehensive enough for governmental operation. To this conceptual creature of the law modern society has delegated some of the most important functions of its economic life. And to enable its many members to co-operate with each other and derive the benefits of each other's capital, the fascinating realm of corporation finance has been gradually built up.

The problems connected with this highly artificial realm of corporation finance are intimately connected with great and far-reaching economic and social questions. In the ease with which they effect the transfer of property, corporation securities are a substantial bulwark of an economic democracy; in the ease with which they perpetuate the form without the substance of property ownership, they jeopardize the very existence of an economic democracy. It is such contradictions as this that give to the financial problems of corporations an importance far beyond mere descriptive economics.

It is perhaps not too much to hope that this study will be of value to two groups of persons. There are many business men and bankers who are concerned with finance as a means to a purely practical end—namely that of administering their particular businesses wisely and with broad judgment. If this study helps them to accomplish this practical purpose and to see their daily problems in a wider perspective, it will have served a good end.

It is my hope, too, that this study will help to strengthen college teaching in contemporary economic problems. American students are turning, in increasing numbers, to contemporary social and economic courses of study. Those educated in the older humanitarian moulds of thought may regret this change in the students' point of view. Nevertheless, it is present. It cannot be stifled, nor circumvented by the substitution of the study of other peoples and other times. The alert undergraduate of vigorous, virile personality, the best foundation for the making of American men, wants to know how banks are organized, how railways are run, and how the average man one meets on the street is getting a living. These may be very prosaic questions, but they are very vital ones. And the college undergraduate demands—I know this from an intimate teaching acquaintance with many young men in two of our universities—that his college course shall give him a direct and sympathetic appreciation of the foundation upon which rest those great social and economic questions which present themselves in any direction he turns—the newspaper, the periodical, politics, even the banter of the dilettante in social reform.

I have a strong belief that there is no opposition between the theory and the practice of sound finance. As in all other spheres of social activity, good practice is based on sound theory and sound theory has its constant pragmatic justification in successful practice. In their mutual desire to strengthen our economic fabric the practical business man turns more and more to the economist, and the economist feels an increasing sympathy and a greater respect for the constructive genius of modern business activity.

Arthur S. Dewing

Cambridge, Massachusetts,
August 5, 1926.

CONTENTS

Book I—Corporate Securities

CHAPTER PAGE
I THE ELEMENTARY CONCEPTS 3
II CAPITAL STOCK 8
III STOCKS WITH PREFERENCES 34
IV THE GENERAL FORM OF BONDS 78
V BONDS SECURED BY PLEDGE OF SPECIFIC PROPERTY . . 112
VI BONDS SECURED BY CREDIT 141
VII EQUIPMENT OBLIGATIONS 177
VIII CONVERTIBLE ISSUES 218

Book II—Promotion

I THE PROMOTER 235
II THE VALUATION OF A GOING BUSINESS FOR THE PURPOSE OF PROMOTION 258
III THE BANKER'S CONTRIBUTION TO PROMOTION 278
IV THE GENERAL PRINCIPLES UNDERLYING THE FINANCIAL PLAN 294
V THE FINANCIAL PLAN OF A NEW MANUFACTURING ENTERPRISE 304
VI THE FINANCIAL PLAN OF THE NEW PUBLIC UTILITY . . 319
VII THE FINANCIAL PLAN OF A RAILROAD PROMOTION . . . 362
VIII UNDERWRITING SYNDICATES 378
IX MARKETING OF INVESTMENT SECURITIES 408
X THE MARKETING OF LOW-GRADE SECURITIES . . . 432

Book III—The Administration of Income

I THE SIGNIFICANCE OF ACCOUNTING THEORY IN FINANCE . . 453
II THEORY OF COMPENSATION FOR WASTING ASSETS . . . 460
III COMPUTATION OF THE SURPLUS 484

CHAPTER PAGE
IV THE COST OF BORROWED CAPITAL 503
V SPECIAL RESERVES FOR BUSINESS CONTINGENCIES . . . 518
VI THE PRINCIPLES GOVERNING THE DISTRIBUTION OF PROFITS TO STOCKHOLDERS 536
VII THE PRACTICAL EXPEDIENCY OF DIVIDEND DISBURSEMENTS 581
VIII TREATMENT OF SINKING FUND RESERVES 592
IX THE VOTING TRUST 617

Book IV—Expansion

I UNDERLYING MOTIVES AND PROBLEMS 633
II THE LAW OF BALANCED RETURN 639
III INDUSTRIAL COMBINATIONS 664
IV THE EXPANSION AND CONSOLIDATION OF RAILROADS . . 706
V THE PUBLIC UTILITY HOLDING COMPANY 753
VI THE COMMUNITY OF INTERESTS 784
VII THE SOURCES OF CAPITAL AND SHORT-TERM BORROWINGS . 813
VIII EXPANSION THROUGH THE SALE OF SECURITIES TO BANKERS 828
IX PRIVILEGED SUBSCRIPTIONS 847
X CUSTOMER OWNERSHIP 870
APPENDIX TO BOOK IV—A STATISTICAL TEST OF THE SUCCESS OF CONSOLIDATIONS 885

Book V—Failure and Reorganization

I THE PROBLEM OF REORGANIZATION 901
II CAUSES OF FAILURE 908
III THE PROCEDURE OF REORGANIZATION 930
IV THE REORGANIZATION OF RAILROADS 975
V MONEY REQUIREMENTS AT TIME OF RAILROAD REORGANIZATION 1005
VI THE REDUCTION IN FIXED CHARGES IN CONTEMPORARY RAILROAD REORGANIZATIONS 1042
VII TRACTION REORGANIZATIONS 1089
VIII INDUSTRIAL REORGANIZATION 1102
IX CREDITORS' COMMITTEE REORGANIZATIONS 1133

Book VI—Investments

CHAPTER PAGE

I THE NATURE OF INVESTMENT INCOME 1165

II THEORY OF ECONOMIC PROFITS APPLIED TO INVESTMENTS . 1181

III INVESTMENT WITH REFERENCE TO THE INDUSTRIAL CYCLE, SHORT-PERIOD INVESTMENT 1205

IV PERMANENT INVESTMENT POLICY 1225

INTRODUCTION

Finance is the science of money. As the value of money lies in the value of other things for which it is exchanged, any transaction in which goods or services are given for money, might be called a financial operation. The term "finance," however, broad as would be its most general definition, is ordinarily narrowed to embrace only a study of the principles and the methods of obtaining control of money from those who have saved it, and of administering it by those into whose control it passes. The term is employed usually in connection with relatively large transactions, in which there may have been difficulty in bringing together the requisite amount of money, or in which a number of different parties are concerned. Regarded, indeed, as a science or a body of scientifically related facts, finance has come to refer to large capitalistic undertakings whether conducted by a government or its political subdivision, or by an individual or group of individuals.

The science of finance may be conveniently divided into *public* finance and *private* finance. The former deals with the methods of securing money for the conduct of government and the administration of the public funds; the latter deals with the methods of securing money for private, usually gainful, enterprises and the administration of this money by individuals, corporations, and voluntary associations. The two fields are distinct. In the former, money is spent so that it may yield, ostensibly, the greatest value for the members of the community; while in the latter the money is spent so that it will yield, ostensibly too, the greatest ultimate profit to those who contributed it. The point of view is different throughout, although there is this in common, that in each case the ultimate economic sanction is the largest value with the least waste, and the ultimate ethical sanction is justice to all concerned.

Private finance in its turn may be further subdivided into various departments, such as personal finance, partnership finance, and corporation finance. From another point of view it may be subdivided according to the kind of industry for which the money is gathered—banking finance, railroad finance, public utility finance, industrial finance, or mining finance. The present book is concerned wholly with private finance, and especially with those financial operations carried on by the modern economic unit known as the business corporation.

The primary purpose of the present work is to describe the financial processes of corporations. Without attempting to formulate a legal or historical definition, a corporation may be described as an organization sanctioned by government to carry on some specific and clearly defined undertaking. The corporation is considered as separate from its members; it is capable of expressing purposes and ideals of its own, of owning property, of contracting debts, of suing and being sued—all in its own name without in any way involving its incorporators, officers, directors, or shareholders. In these respects corporations are to be distinguished from partnerships and purely voluntary associations involving the individual responsibility of their members.

Speaking in general terms, corporations may be divided according to their main purpose into those existing for an altruistic or ideal purpose, such as churches, colleges, and scientific societies; and those existing for an economic purpose, the business corporations, such as railroads, banks, and gas works. The term "corporation finance" includes, specifically, the financial transactions of the latter group.

Corporation finance deals with both fact and policy. It is concerned with fact, in so far as it describes the prevailing customs and methods which are employed in the financial administration of the modern corporation; it deals with policy, in so far as it succeeds in formulating principles or rules of expediency which may serve as guides to sound financial procedure. The two should be distinguished. For example, that short-term notes have been issued extensively by railroads since 1910 as a means of securing money from investors, is a plain fact about which there can be no dispute. That such a course has been inexpedient and should not be continued, is a judgment of policy over which there may be a dispute. One is a clear statement of empirical fact, and the other a statement of financial policy. Both kinds of statement find places in a science of finance. Yet care must be exercised to distinguish between them, for the former is objectively true, while the latter is significant only as the product of mature generalizations, based on grounds of economic expediency. As in all other branches of the social sciences, what purports on its face to be an inductive principle, turns out on analysis to represent merely a summary statement of a limited, though extensive, area of experience.

The assumption that business corporations as a class are organized and conducted primarily for profit, does not obscure the still more important fact that in receiving a profit, all private corporations must serve a public end. The railroads were built originally by money collected from men who hoped to obtain large profit through their operation. Nevertheless the railroad has wrought a veritable social and economic revolution, welding into a coherent industrial unity the peoples of widely separated geographical regions. Built by private means, and administered by private agencies, the railroads, the electric light companies, the gas works, were conceived primarily to yield a profit; yet this profit was possible only so long as they served real human needs. This is the presupposition of the social justice of the private administration of property.

Empirical facts and theoretical psychology both substantiate the belief that individual initiative, personal ambition, and even the primitive passion of conquest, are forces which are necessary to produce the greatest efficiency of economic production with the least waste of social capital. The difficulty about the modern practice of this theory lies in the inadequacy of the quantity of capital that can be devoted by a single individual or group of individuals to a single enterprise. Yet economic progress, since the industrial revolution, has depended more and more on increasing the quantity of capital at the command of a single enterprise. The capitalization of the Pennsylvania railway system is close to a billion dollars; that of the New York Central system is the same—an amount of capital not conceivably at the command of a private enterprise a century or even half a century ago. The all-important economic problem of the last hundred years has been to secure the initiative and coherence, the force of individual ambition with its attendant responsibility, that goes with the private conduct of enterprise, and at the same time secure to the private managers the necessary capital to carry on vast and expensive undertakings. In brief, it has been the problem of retaining the force and responsibility of private business without the limitations of individual accumulation of capital.

The problem has been solved by the corporation.[1] The officers and directors of the corporation retain the responsibility of private effort, the stockholders and bondholders furnish the capital in unlimited amounts. Although merely an immaterial form, the corporation has nevertheless wielded an economic and social influence greater than any other purely conceptual entity of the last century. The contribution of the corporation to the evolution of the form of modern industry has been no less potent than that of machinery to its technique.

Aside from the form of the corporation itself, as a conceptual entity, three wide-spread influences have tended to accentuate the importance of corporation finance. These are the broader distribution of wealth among small capitalists, the increasing public responsibilities which private corporations assume as they increase in size and influence, and lastly the widening breach between the persons who save capital, that is to say, the capitalistic forces of society, and the managers of business enterprise, that is to say, the entrepreneurs.

---

[1] The books and monographs on the development and economic significance of the corporation have been legion. See particularly for legal aspects Baldwin, S. E., in Two Centuries' Growth of American Law (Yale Bicentennial Series [1901]), and for brief account of early American corporations, Davis, J. S., Charters for American Business Corporations in the Eighteenth Century. 15 Jour. Am. Stat. Assn. 426 (1916).

The extent to which the Fourth Liberty Loan was subscribed throughout the country was a revelation to most economists of the potential saving power of the workers, the small farmers, the shopkeepers, in fact the great body of American men and women whose individual margin between receipts and expenditures is ordinarily small. True, the Great War had very much increased the margin of the ordinary worker, farmer, and small entrepreneur, nevertheless the latent power of saving has been present to a far larger and wider extent than anybody realized, even the observant student of contemporary economic conditions. Much of this vast fund of the small savers has been finding its way into the economic current through the instrumentality of co-operative banks, savings banks, and life insurance companies, so that the ultimate origin of the savings has not been at first sight clear. Statistics show, however, that the real owners of the railroads of this country are the life insurance companies and the small national, state, and savings banks; and the real owners of these institutions are the thrifty wage earners, shopkeepers, farmers, and country merchants.

The means of the economic development in this country have come, as in England, France, and Holland, from the wide-spread thrifty, industrial, middle class. The United States Steel Corporation has over a hundred thousand individual stockholders, the Pennsylvania Railroad has nearly as many and the American Telephone and Telegraph Company had, in May, 1926, over three hundred and sixty thousand stockholders. Beyond this number there are the millions of creditors of the life insurance companies and savings banks whose contributions have made possible the enormous bond issues of those corporations. Sporadic cases exist of large capitalists, but they do not control the great corporations. Less than one per cent of the stock of the American Telephone and Telegraph Company is owned by one individual; the directors of the New York Central Railroad own personally much less stock than the road's unionized employees. The largest single stock holding, that of a New York banker, is a small fraction of a per cent of the entire capitalization. The large merchants and large banks use their own resources. But the resources of even such concerns are insignificant compared with the aggregate of the small savers of the country to whom the accumulation of capital is merely incidental to the every-day planning of life. This fact explains why there is no capitalist class, for the great industries of this country are owned by the people. It explains, also, why our unstable economic life produces so little of individual permanency—and yet so great permanency of our fundamental economic institutions. All this is possible because wealth has assumed the form of corporation securities instead of titles to land.

Another cause for the increasing importance of corporation finance lies in the influence wielded by the great private corporations in our economic and social organization. Soon after the United States entered the Great War it was realized that one of the essential elements to our success was an efficient transportation system. Because of the narrow vision and still narrower understanding of men who composed the Interstate Commerce Commission, the railroads had not been allowed to increase their rates in proportion to the costs of operation. Consequently, their earnings had declined and with their earnings their credit. As a result, the railroads had been unable to improve their plants in proportion to the demands of our widening economic activities, so that when the crucial test of the war came, the railroads were—quite as disastrously as the various departments of the government—unprepared for the test.

The railroads are by no means the only great corporations essential to our national life. When the Westinghouse Electric and Manufacturing Company failed in 1907, creditors, cooperating with the receivers who acted under instructions from the court, sought every means to rehabilitate the corporation. The business interests of the country required the active existence of this concern, because it was then the second largest manufacturer of electric equipment in the country. The ideas of eminent domain, of the inviolability of franchise contracts, of regulated monopoly as applied to public utility enterprises—all testify to the important place which these enterprises occupy in our modern life. The telephone system, the gas works, the electric light and power company, and the street railroad, are all private corporations of varying size whose activities are indissolubly bound up with the industrial life of their communities.

These two aspects—the widening ownership of the corporation and the widening public concern in its success—have developed together. The success or failure of a business conducted by a single individual or a group of individuals is not of wide public interest. Thousands of small businesses fail every year without the fact being noted except in the tables of the credit statistician. The big businesses, with their legions of stockholders, are big because of wide-spread ownership, and of the public concern which such business activity entails. It is this interaction between increasing size with its increasing number of stock- and bondholders and an increasing public importance, which is one of the most significant elements in contemporary economic history.

And these changes have been concurrent with a growing divergence between the owners and the operators of these large corporate enterprises. The economist has long since distinguished between the parts which management and capital play in industry, though he has failed to recognize the fact that this separation has applied in practice only to large businesses. In small industries the separation is difficult and inexpedient: the farmer is both owner and operator of his farm; the pharmacist owns and operates his corner drug store; the local country butcher owns his shop, slaughters his cattle, and sells his meat.

But as enterprises increase in size and scope, the operators find themselves able to employ profitably more capital than they individually can command. Then they are "backed" by others —first wealthy friends, then the local community, then the great army of small savers who live on less than they produce. In the same way, the first bankers in the rich Italian cities of the Po Valley seven centuries ago were business men who participated in the maritime ventures of others, and somewhat later the first English banks were the goldsmith companies which owned and loaned their gold. As wealth increased on the one hand and business specialization on the other, men who had little if any capital, but marked ability, were led to assume the management of enterprises built with capital furnished by others.

Under the simpler economic conditions of earlier times, when the owner and the manager were one, finance was comparatively simple. But now with a constantly increasing diversification in the elements of a business, the financial methods of the proprietor-manager have given place to others which are increasingly complex.

The field of corporation finance has been progressively widened, following the changes in the form under which industries are conducted. From 1830 to 1890 railroads and banks were the only great industries requiring the use of large amounts of capital and hence requiring, of necessity, the corporate form of organization. Therefore, the financial terms, methods, and policies connected with the new form became established in railroad finance before they were carried over into other industries. Just prior to the panic in 1893, however, manufacturers conceived the idea of organizing their competitive businesses into large units for which new capital could be secured from public subscribers. Family businesses and partnerships of several generations were changed into corporations, and these in turn merged into great industrial consolidations. And concurrently the financial practices were transformed to agree more nearly with the established practices of railroad finance. It is this entire body of precedents, practices, policies —based on accident, on law, and on past expediency, and applying to all kinds of corporations—which forms the substance of corporation finance.

THE FINANCIAL POLICY OF CORPORATIONS

BOOK I

CORPORATE SECURITIES

CHAPTER I

THE ELEMENTARY CONCEPTS

Economists' Conception of Capital.—The elemental conception of finance is capital. The word "capital" has been used, unfortunately, in such a variety of senses that it is now meaningless outside of its context. As a conception of economic theory it has been defined, interpreted, and reinterpreted according to the training or whim of the economist. As a conception of accounting, it has been variously conceived as an asset or a liability, as property or merely a variety of meanings all vaguely in accord with the variety of views current in the business world.

From the point of view of the theoretical economist, trained in the positivism of Smith, Mill, and Cairnes, capital means one thing, namely, the material goods created through the labor of man which are devoted to the production of wealth. The term "capital" designates both material goods made by men, and society's instruments of production. With this theoretical definition we are not here concerned, except to comment that all other conceptions of capital are ultimately based on this description; all other conceptions presuppose the three elements—labor, material goods, and productiveness—involved in the definition used by the classical economists.

Business Conceptions—GROSS CAPITAL.—We are here concerned with the term "capital" as used in the vocabulary of private finance. But unfortunately for our clearness of understanding the term is used to refer to two different capitals—the entire fund used in a business and the net fund owned by the proprietors of the business. This difference of meaning is clear from the manner in which the funds necessary for the conduct of any business arise.

Any business undertaking requires that a certain amount of material goods and intangible values—such as trade marks or patent rights—be segregated for its exclusive use. In the aggregate these comprise the capital of the business—the entire economic resources employed in the undertaking. So far as the conduct of the enterprise is concerned or the uses made of this aggregate of properties and values there is no distinction between the property acquired from friends that originally purchased out of its earnings, or that merely loaned to the business by creditors of various kinds—the bondholders, the bankers and the merchants who have supplied the business with its raw material or stock in trade. The important characteristic of this conception of capital is that it represents the aggregate of the funds utilized by the business without reference to the sources whence they came or the rights of different individuals in them. Among the business man's various conceptions of capital this one comes nearest to that of the economist.

OWNER'S NET CAPITAL.—In a single-proprietor business, or even in a partnership, capital is the total of assets of the business. In concrete cases it is determined from an inventory of the actual property owned by the proprietor or the partnership. In businesses conducted by corporations, this simple way of ascertaining capital cannot be used, owing to the necessity of establishing a balance between the assets and the liabilities. The capital is not the aggregate of assets, because the apparent assets are generally inflated by fictitious bookkeeping entries, such as bond discount or the various balances from contingent reserve accounts. It is, on the contrary, the actual or real wealth values used by the corporation—those which have a positive and marketable value.

When, however, the business man, in his ordinary, unanalytical speech considers the sources of the aggregate fund used in any commercial enterprise his connotation of the word capital changes. It ceases to imply the entire fund, but rather that portion of the fund contributed by the proprietors of the business. In this more restricted sense capital means merely that portion—often relatively small in amount—which the proprietors or owners contribute to the undertaking. Thus, if a group of men purchase a manufacturing plant, paying for it $500,000 of which $100,000 is subscribed by themselves, $300,000 realized by the sale of mortgage bonds and $100,000 borrowed from bankers, the group of proprietors would say that they have $100,000 of capital in the undertaking, although the total capital employed in the enterprise is five times as great. When, because of these two usages, there is likely to be uncertainty as to the meaning of the word capital, it will add to clearness if the total capital used in the enterprise is referred to as the gross capital and the proprietor's share as the owners' net capital.

Use of Term in Accounting.—Closely allied with these different uses of the concept of capital is the use of the term and its derivatives in accounting. The business man regards capital, in either sense, as a property value. It is to him positive wealth. The accountant, on the other hand, regards capital and its derivative terms, such as capital stock and capitalization, as liabilities. This is because of the artificial nature of accounting theory which requires a balance between the possessions or values of a business and the various claims against the business no matter the origin or character of these claims. As the proprietors and creditors alike have ownership rights in the total property fund of the business, these rights must be regarded as liabilities of the business. From the point of view of accountancy, therefore, capital or capital stock is the liability of the business for the original contributions of the stockholders to the property of the corporation. It is the claim of the proprietors of the business for their joint contribution to set up the business.

In brief then, and as used hereafter in these pages, "capital" refers to the actual wealth employed in an undertaking, and "capitalization" to the representation of this wealth in terms of purely artificial and, in the end, fictitious values. A part of these representative values, namely those contributed by the proprietors, is designated "capital stock"; and the other part, that contributed by outsiders, is spoken of as "debt."

Capitalization.—The term "capitalization," or the valuation of the capital, includes the capital stock and the debt. In individual proprietary and partnership businesses the term has no significance, as there is no occasion to represent the capital of a business other than in terms of actual property. But with the corporation the matter is entirely different. The corporation is conceived to be the recipient of a fixed amount of property which remains constant, no matter what the fortunes of the business may be. This is the capital stock. In addition, the corporation borrows money from outside sources. The sum of these amounts represents the securities or the representative values issued against the actual capital employed in the business. In a concrete case it is often difficult to determine the exact amount of capitalization, because much corporate debt represents merely temporary borrowings more or less completely offset by an ever-changing volume of current assets. The idea, however, of capitalization is that it shall represent the capital stock and the permanent or funded debt. It is the total securities or representative values issued by the corporation against its actual property.[a]

---

[a] A great deal has been written from the different points of view of economic theory, finance, and accounting in the effort to distinguish between and define the different uses of the concept of capital and its derivatives.

Two modern writers dealing with capital from the same point of view as in this book have said, "Capital assets are all those funds, properties and equipment required for continuous, productive use."[1]

Ripley uses the term "gross capital" to refer to an aggregate of funded liabilities where there has been no effort made to avoid duplications, and "net capital" to the sum of such liabilities where all duplication has been avoided.[2] This distinction is of the utmost importance in railroad finance, and recent public utility finance. The same writer follows a similar distinction between capital and capitalization. The property brought into being as capital remains forever entirely distinct from its capitalization, albeit linked in a casual relation thereto. Capital is reality. Capitalization is merely a record of past operation and a bench mark or standard of measurement for the future.[3]

---

[1] Cleveland and Powell, Railroad Finance, 322 (1912).

[2] Ripley, W. Z., Railroads, Finance and Organization, 61 (1915).

Every study of corporation finance seeks to draw at least some distinctions among the maze of confusions arising out of these various terms.

Every treatise on economics feels compelled to discuss the question, but few shed much illumination, because they fail to see that the business man and the accountant have both adopted the same words but approach them from opposite points of view.

In actual practice it is often very difficult to apply these distinctions strictly. Especially is that true when it comes to compute the actual capitalization of a large corporation with a complicated security structure. It is very difficult, for example, to compute exactly in dollars and cents the capitalization of a large railway. While in a simple case it may be fixed by adding together its capital stocks and its bonds one is always perplexed by a variety of other liabilities. In some railway systems, like the Lackawanna, the rentals must be capitalized. In others, like the New Haven, the current debt must be included, as this current debt was incurred in order to construct permanent additions to the property of the road. On the other hand, there must be various adjustments for joint bonds, collateral trust bonds issued on proprietary lines, and all contingent liabilities, as in the case of guaranteed bonds on other and separate lines. For example, Ripley questions, to the length of an appendix, the extreme difficulty of proportioning the capitalization of jointly owned terminal roads.[4] In actual practice, great care must be exercised in any given case and no general rule can be laid down as to what liabilities to include and what not to include in determining the net capitalization of any railroad.[5]

---

[3] *Ibid.*

[4] Ripley, W. Z., Railroads, Finance and Organization, 609 (1915).

[5] See particularly Cleveland and Powell, Railroad Finance, Chaps. III and XVII (1912); Ripley, W. Z., Railroads, Finance and Organization, Chap. II (1915). Among the books on corporation finance, strictly speaking, the most exhaustive discussion is found in Lyon, W. H., Capitalization (1912), whose main efforts are directed toward clarifying our usage of these words. See also discussion in Conyngton, H. R., Financing an Enterprise, Part VI (1921), and Reiter, Prosper, Jr., Profits, Dividends and the Law, (1926).

CHAPTER II

CAPITAL STOCK

Capital stock, common stock, or merely stock, represents invariably the interests of the proprietors in the corporate enterprise. In no sense can stock represent an outside claim; in no sense can the stockholder regard himself as a creditor. This distinction is sometimes obscured by such anomalous cases as redeemable stock and participating bonds. Yet, as clearly brought out in decisions of the courts,[a] the distinction is still recognized by statutes and the judicial decisions governing the law of corporations. Furthermore, the distinction is fundamental to corporation finance.

Fundamental Conception—Common Stock.—The fundamental idea of stock is that it represents the proportionate contribution to the original capital or property of the corporation; and latterly, after the corporation is conducting its business, the net value of the property of the corporation existing at any one time. Shares of stock are shares of interest in the fortunes of the business, and these shares of interest involve the responsibility of management as well as participation in the profits or the losses. So far as the complexity of modern business permits, the stockholder is the business partner of the old-fashioned partnership, but he lacks certain of the legal implications attending the position of partner. Unfortunately

---

[a] A notable case of this was the attempt of the directors of the old American Malting Company to pay unearned dividends to stockholders. A distribution of interest to creditors may be made from any funds available to the corporation, but a distribution of dividends to stockholders can be made only out of earnings or surplus accumulated from earnings. In the Malting case it was clear that the corporation, only recently organized, had not realized a profit, yet the directors paid dividends—probably to maintain the market price of the shares. The court ordered the directors to refund, personally, these dividends to the corporation.[1]

---

[1] Details, Dewing, A. S., Corporate Promotions and Reorganizations, Chap. I.

this original simplicity has been modified by the demands of the increasingly complex financial organization of business, so that in many forms of stock the first simplicity of motive is obscured or almost entirely obliterated. Nevertheless, the essential fact remains that capital stock represents, at the last analysis, the ownership and the rights to receive profits and endure losses of the corporation as an enduring and functioning creation of the law; and this essential characteristic of stock cannot be entirely obscured without entirely destroying the existence of the business corporation as now conceived by law and social policy.[b] In every business corporation, therefore, there must be stock and stockholders who represent the downright ownership and responsibility of management of the corporation. This stock or capital stock is sometimes called common stock, merely to make clear, unequivocal or emphatic, the fact that it represents the ultimate ownership and responsibility for management of the corporation. The use of the term common stock rather than just stock may suggest, but it never implies, the existence of some other type of stock—such as preferred or debenture or participating—that possesses certain limitations or privileges.

Types of Common Stock—Simple to Complex.—The implication of common stock, then, is that it shall stand for the representative values of the proprietary interests; but these representative values may or may not include the entire assets or actual total property of the corporation. Consequently there are two types of common stock, unlike in the extent of the rights which the ownership implied involves. One type of capital or common stock stands for the entire property of the business. The stockholders own everything. There are no preferred shareholders, no bondholders, no short-term noteholders. The other type represents merely the margin of assets

---

[b] Needless to comment, there are exceptions. For example, in the anomalous capital structure of the Green Bay and Western Railroad, the common stock has priorities over one issue of debenture bonds.[2]

---

[2] See Poor's Manual of Railroads.

and earnings after the claims of a host of preferred stocks, bonds, debentures, and mortgages have been satisfied. From every point of view, except that of legal status, these two types of common stock must be carefully distinguished.

The simpler form of corporation with its single class of stock was developed historically and logically out of the partnership. Common stock of that type, representing the entire business, came first in point of time as well as first from the standpoint of simplicity. It was only in later developments of corporate enterprise that bonds, or preferred stock, or any other form of capitalization than stock alone came into use. The simpler financial structure with stock alone is still retained by most of the smaller manufacturing and mercantile corporations, and by a large proportion of the old long-established New England manufacturing and public utility companies, both large and small. It is invariably followed by banks, trust companies, and insurance companies, where capital stock means a fund kept inviolable for the general creditors of the institution.

Throughout the history of American railroad finance the tendency has been from the simple financial plan to the complex, from plain stock to stock and mortgage bonds, then to two kinds of stock and the wide variety of bonds covering the simple mortgage and the intricate, non-cumulative income bond. The vast majority of all the railroads of the East promoted prior to 1840 were constructed from money subscribed by stockholders, in the same manner as stockholders now furnish the share capital of a bank. Without exception the main railroads of New England were originally built by the inhabitants along their lines who took ordinary common stock. Even today many sections of the New England railroads are unmortgaged, although the great national railways systems, particularly since the year 1900, have paid for most of their extensions through the issue of bonds.[3]

---

[3] For example, note the small bonded debt of the New Haven in 1899. See Poor's Manual. This matter is further discussed by Cleveland and Powell, Railroad Finance, 50 (1912). Ripley, W. Z., Railroads, Finance and Organization, 10 (1915). For special studies see Book I, Chapter VII.

The financial methods of public utility enterprises have undergone a parallel development. The first gas works in the older states were built entirely from stock subscription and the old Massachusetts public utility corporations still have only stock outstanding. But, as in the case of railroads, when extensive enlargements requiring other than local capital were necessary, it was found easier to secure money through the sale of bonds than through the sale of stock alone. At the same time preferred stocks were introduced to meet the requirements of an investing class who were willing to sacrifice security for high return. The development has moved more slowly in the case of manufacturing enterprises than with public utilities. Because the large industrial combinations are still on trial, as it were, before the bar of investment prejudice and can obtain money only from people directly interested, stocks still predominate in their financial plans. Yet there is clearly apparent a growing inclination to diverge from the original custom of issuing only common stock and create in addition both preferred stocks and bonds. To recapitulate then, in the wide range of the railroads, the lighting and power, and the manufacturing businesses, the original form of a common stock, representing the entire business, has been more or less superseded by a common stock representing merely nominal rights in residual equities.

Common stocks of the first group—representing rights to the entire property—are now restricted to a few small railroads, the majority of Massachusetts electric light and gas companies, most small and medium-sized cotton mills, locally owned manufacturing companies, banks, insurance companies, and mines. There have been in almost every case some special reasons tending to hold back these types of industry from developing the more elaborate form of capitalization. Until recently the tax laws in Massachusetts levied a general property tax on bonds, but not on stocks, so that gas or electric light plants and even cotton mills found a readier sale for their tax-exempt stocks among local capitalists. Small manufacturing companies everywhere find the banks reluctant to extend credit to bonded plants; banks and insurance companies are prevented by law from altering the form of their original stock issues; mines find it impossible to sell bonds. Investors in any of these stocks are the actual owners of the business, subject only to the claims of the holders of floating debt and the merchandise creditors.

Just as the evolution of the forms of securities has moved away from the single class of stock, having exclusive rights over the assets of the corporation, to a classification of securities having successive rights to the assets, so within the last five years there have been repeated attempts to divide the common stock into various classes having different rights to the residual profits. This distinctly recent development in corporation finance will be discussed at some length in the chapter dealing with stock preferences.

Shares in Associations, etc.—Analogous to the common stocks of corporations possessing the entire rights to the corporate property are the shares in associations, shares in trusts, and certificates of part ownership.[4] Except in the legal obligations taken by their owners, which are analogous to those of partners, these anomalies are common stocks in all but name. The certificates in associations are, in truth, certificates of partnerships. Owing to the unlimited liability that attaches itself to such partnership interests, these certificates of associations are not in use anywhere in the United States, except in the case of the large express companies and certain small New England businesses which have maintained a kind of localized partnership character for the last fifty or more years. The Adams and American express companies' stocks are the only remaining partnership shares widely held by the public. These partnerships were formed some fifty years ago—by means of "Articles of Association" under which the original associates and their successors agreed to engage in the express business.[c] The management was restricted to a small group of officials which organized and maintained itself independently of the great body of certificate holders or partners. In this manner the management of the association was independent of all regulation either from within or without, and it was not until the federal government, by the constitutional authority of the "commerce between the states" provision, placed the express companies under the Interstate Commerce Commission that any control was exercised over the conduct of their business. This power of the management to conduct the affairs of the express companies without financial responsibility to the shareholders has worked greatly to the latter's disadvantage.[5]

---

[4] See Conyngton, T., etc., Corporation Procedure, Chap. LXII (1922).

Massachusetts Associations.—Shares of trust, or business associations survive only in Massachusetts.[6] Historically they owe their origin to the fact that corporations cannot hold real estate for investment (mortmain).[d] Title to property, ac-

---

[c] The certificates of the American Express Company read as follows: "American Express Company, organized under Articles of Association, dated November 25, 1868, in which it is among other things provided: That the term of the existence of said company shall be thirty years from and after the first day of December, 1868. That the shares shall be transferable on the books of the company only in person or by Attorney, upon surrender of the script representing the same and the payment of all calls and assessments unpaid thereon. That such transfer is not matter of right, but is permitted by the Company, in case the Board of Directors shall not elect to purchase said shares for the benefit of the Company at the market value thereof. That the shares are subject to assessment for all losses and damages and other liabilities incurred in the prosecution of the business of the Company. That the receipt of this certificate constitutes the person receiving the same, from the date thereof, a member of said Company, entitled to all benefits and subject to all the liabilities of a shareholder therein as fully as signing said Articles of Association would do."

[d] It should be remembered, however, that trusts, similar in form to the Massachusetts Trust flourished in large measure in the early eighteenth century in England. It was believed that they were used as the vehicle for fraudulent activities and they were legislated out of existence by the Bubble Act of 1719;[7] legalized in 1825 and finally prohibited in 1862.

---

[5] An illustration of this is afforded by the purchase of a large interest in the Wells Fargo Company by the American Express Company at a greatly inflated price and the retention of its large holdings of New Haven stock, although not operating over this road. Altogether the management of the American Express Company, especially in its investments, has been conspicuous for its lack of judgment.

[6] Except elsewhere in a few cases where specifically permitted by law, as in the case of the Chicago Elevated Railways.

[7] St. 6 Geo. I, c-18. This was made applicable to the American colonies by St. 14 Geo. II, c-37.

cordingly, is taken by a group of trustees who issue their certificates of equitable interest in the trust property. The trustees derive their authority from trust agreements or articles of association, which describe in detail the powers of the trusts and the certificate holders, their rights, and exemptions. When the trust form of organization was driven out of other states [8] it remained in Massachusetts because, sanctioned by a century of usage, a large amount of property had passed under the trust organization and the persons most concerned exercised a strong influence on the course of legislation.[e]

The exact legal status of the Massachusetts Voluntary Association is extremely difficult to determine and has given rise to much litigation and a good deal of legislation.[12] If

---

[e] The Massachusetts Trust has been called "a combination of capital vested in trustees who issue transferable certificates for shares and execute a declaration of trust designed to provide for the shareholders all the immunities of corporate shareholding." [9]

The trustees are elected by the shareholders or, in case of a vacancy, by the board of trustees. Provision is made in the agreement and declaration of trust to the effect that when new trustees are elected, the trust estate shall vest in them without further conveyance. The declaration of trust specifies the powers of the trustees. They have a common seal; the board is organized with the usual officers of a board of trustees; it is governed by by-laws; the officers have the usual powers of like corporate officers; so far as practicable, the trustees in their collective capacity, are to carry on the business under a specified name. The trustees may also hold shares as beneficiaries. Provision may be made for the alteration or amendment of the agreement or declaration in a specified manner.[10]

Trust

The characteristics assumed by these associations which, it is commonly said, resemble the attributes of a corporation are of two distinct types. They are to be found in all the more recent forms of instruments creating these associations.

1. Transferability of shares.
    (a) Without effecting the dissolution of the organization.
    (b) Without giving shareholders the right to an accounting.
    (c) Without giving the shareholders any right or interest in the property of the concern.
2. The limited liability of the shareholder for the debts of the concern.[11]

---

[8] Largely because of the North River Sugar, 121 N. Y. 582 (1890), and the Ohio Standard Oil, 49 Ohio 137 (1892) cases.

[9] Wrightington, S. R., 2 T. Yale Law Jour. 310.

[10] 3 Bouvier 3333.

[11] Mass. House Doc. #1646, page 3 (Jan. 17, 1912).

[12] There are a number of discussions of the subject, besides the innumerable legal cases.

Lewin, "The Law of Trusts," Harvard Law Review, Vols. I, IV, and VII.

Sears, J. H., Trust Estates as Business Corporations (1912).

Wrightington, S. R., The Law of Unincorporated Associations (1916).

Cook, W. W., "The Mysterious Massachusetts Trust," Am. Bar Assn. Jour. (Dec., 1923).

12 Ill. L. Rev. 482 (1918).

the associations are actually express trusts, then the holders of the certificates, beneficiaries or "cestui que trustent," can have no voice in the management.[13] If on the other hand, the beneficiaries are given managerial power, then the association partakes of the nature of a partnership and the holders of the trust certificates become legally bound for the debts of the trust estate. To secure a kind of control by the shareholders, yet immunity from personal liability, ~~has been the aim of all these~~ voluntary associations.[14] Yet they all have trust certificates, transferable like any corporate stock certificate and bought and sold on the market in the same manner. A large number of people who invest in these trust certificates are ignorant of their true nature.

Such an association, with transferable shares, was decided to be legal over thirty years ago,[15] notwithstanding old English statutes to the contrary, and subsequent decisions have given the voluntary association a secure position among Massachusetts business forms.[16] Until recently these voluntary associations with transferable shares had all the advantages of the corporate form of organization, and were free from many of the disadvantages. Accordingly, in addition to their original purpose of holding land for investment, they have been formed, extensively, to operate cotton mills in Massachusetts and even in other states,[17] public utilities in[18] and out of Massachusetts,[19] and other enterprises. But their prominence led to a number of statutory limitations beginning

---

27 Yale Law Rev. 677 (1918).
Conyngton, T., etc., Corporation Procedure, Chap. LXIII.
Dunn, W. C., The Business Trusts (1922).
Two legislative reports contain exhaustive discussions of the subject. Mass. House Doc. No. 1646 (1912); No. 1788 (1913).

[13] Williams v. Milton, 215 Mass. 1.

[14] See the elaborate report to the Massachusetts House referred to note 12 above.

[15] Phillips v. Blatchford, 137 Mass. 510 (1884). An important recent leading decision is Hussey v. Arnold, 185 Mass. 202 (1904).

[16] St. 6, Geo. I, c-18. See among others 140 Mass. 346; 168 Mass. 566; 174 Mass. 491; 185 Mass. 202. Exhaustive discussion in legal treatises referred to under note 12 above.

[17] Amoskeag Manufacturing Company of Manchester, New Hampshire, the largest single cotton mill in the United States and possibly in the world. Also Pepperell Manufacturing Company of Biddeford, Maine, and Opelika, Alabama.

[18] Massachusetts Gas Company, Massachusetts Electric Company, Central Electric Trustees.

[19] Texas Southern Electric.

in 1913[20] which have now placed these associations in practically the same position as corporations. Since more drastic regulation was enacted in 1913 they have declined in relative importance. As Cook remarks, "The Massachusetts Trusts make a noise out of all proportion to their size."[21]

Certificates of Part Ownership.—Certificates of part ownership based on the direct ownership of property are of rare occurrence except in the coastwise shipping business. In this business a vessel is bought by a group of men and the cost divided into tenths, twentieths, or any other convenient fraction. Each member of the group is then given a certificate representing the fractional part of the cost for which he is responsible. Thus one member may own one-sixtieth of a schooner, another seven-sixtieths, and another ten-sixtieths, according to the original contribution. The profits of each voyage are divided among the group in proportion to the certificates of ownership. On the other hand, if the voyage is conducted at a loss, or if the schooner runs on a shoal and repairs are required, the losses are proportioned according to the certificates of ownership.[f]

Par Value.—Common stock, whether of the type that represents all the assets of the corporation or the type that represents merely the residual equity after all other claims have been satisfied, involves two distinct ideas—a participation in the rights of ownership and a valuation of this participation. This latter is the par value. It is the less important. The stockholder can never collect, like the bondholder, the par value of his security from the corporation. Even though paid for in full

---

[f] The use, even, of this primitive type of participating shares is gradually disappearing as the fishing business becomes more and more concentrated in the hands of corporations. And also corporations are now being formed to own and operate single vessels. These vessel corporations have a capital structure in no wise different from other corporations.

---

[20] Act to punish Trustees of Voluntary Associations who do not file reports with Commissioner of Corporations. Gen. Acts Mass. 1913, Chap. 376, and for publishing such reports, *ibid.*, Chap. 507.

[21] Cook, W. W., "The Mysterious Massachusetts Trust," Am. Bar Assn. Jour. 768 (Dec., 1923).

and representing for a short time the full and actual value, the equality passes with the first business transaction, for the value of the property behind the shares changes with every step in the success or failure of the corporation, as new property is added or old property lost or dissipated. The essential character of common stock that remains permanent whatsoever the fortunes of the actual capital, is that it stands for the ownership of a definite proportion of the corporate property and earnings. This involves no par value. The purpose of stock would therefore be fully accomplished if the shares were merely proportionate parts of a total, in other words, shares without par value.

No-Par Value Stock.—The whole discussion of stock without par value is of relatively recent origin. True, there were sporadic instances over a century ago. In connection with the incorporation of the old turnpike companies at the beginning of the nineteenth century, shares of stock were issued to those who subscribed to the turnpike building funds sufficient to start the work of construction. These shares had no par value and were usually without limited liability so far as the debts of the corporation were concerned. In some cases there was also an unpaid liability to be assessed against the shareholders in case the cost of the turnpike construction exceeded the original subscription. In several instances, however, a stockholder could refuse to pay the assessments levied on his shares and thereby forfeit the shares without involving his estate in further liability.[22]

After 1890 the interest in stock without par value centered on the activities of certain members of the New York Bar Association who advocated the passage of a statute permitting the issuing of stock with no par value, and in 1899 the policy was advocated in testimony before the Industrial Commission of Congress. In 1909 a Committee of the New York Bar Association drafted a no-par value stock bill and presented it to the New York Legislature. This was ultimately defeated owing to faulty tax provisions, but in 1912 an amended act was finally passed and became the first general state corporation act permitting the issue of corporate shares without par value.[23] The state of Maryland passed a similar statute four years later and other states followed in quick succession, so that by 1923 more than half of the states of the Union had enacted legislation which permitted the issue by corporations of stocks without par value.

---

[22] Middlesex Turnpike Co. v. Swan, 10 Mass. 384 (1813); Charter Worcester Turnpike Corporation, Statutes of Massachusetts, 1806.

Obviously, therefore, the rapidity with which state legislators and the public have accepted the idea of no-par value corporate shares suggests that the subject is of considerable importance. The rapid substitution, both in new promotions and in the financial plan of established corporations, of no-par shares for shares with a definite money or nominal par value requires a careful consideration of the relative merit of the two plans. Altogether the use of no par value has been subjected to five distinct lines of criticism, any one of which is worthy of careful analysis.

Disadvantages Urged—Alleged Confusion.—Perhaps the least significant criticism of no-par value share is based on the confusion arising from having some corporations with par-value stock and some without par value. This objection was suggested in the Railroad Securities Commission Report of 1911, and answered in the same report by pointing out that already there is no uniformity of par value among the railroads, —some having $50 and less while the Great Northern Ore certificates have no-par value at all. Since 1911 no critic of shares without par value has seriously advanced this objection, nor can it be advanced when one realizes that shares of any par value from one cent to a thousand dollars can be issued under the laws of the various states.

---

[23] Morawetz, Victor, "Shares Without Nominal or Par Value," 26 Harv. Law R. 729 (1913).

Bonbright, James C., Railroad Capitalization, 100-130 (1920). *Ibid.*, "No Par Stock, Its Legal and Economic Aspects," 38, Quart. Jour. Econ. 440 (1924).

Conyngton, T., "No-Par Value Stock," *Administration*, January, 1921.

Cook, W. W., "Stock Without Par Value," *Journal of the American Bar Association*, October, 1921. For early discussions see:

Wickersham, G. W., "The Capital of a Corporation," 22 Harv. Law R. 319 (1906).

Escher, Franklin, "Without Par Value," 56 Harper's Weekly 22 (1912).

Adams, John J., "Stocks," 35 Ac. Am. Ac. Pol. Soc. Sci. 526 (1910).

~~ALLEGED DEPRESSION OF PRICE~~.—The second objection to no-par value stock is that the elimination of par value of a security tends to decrease its market value. All other things being equal it is alleged that removing the par or nominal value tends to reduce the price which the identical shares will command on the open market. From another angle the alleged discrepancy is based on the assumption that the stated par value tends to pull up shares that are quoted below, and tends to depress those that are quoted above the par value. It is argued that as the vast majority of shares of stock have a quoted value below their par or nominal value, the effect of removing this par value is to cause a decline in market price. In brief, it is said, shares without par value do not have the advantage of a nominal or money, albeit artificial, standard the mere statement of which may tend to enhance their money value on the market.[g]

This objection, obviously, is based on the assumption that investors are deluded into thinking that the nominal par value of the shares of a corporation expressed in money helps to determine their value.[25] Students of investment have been inclined to deny that, with the possible exception of very low or fraudulent shares of stock, the par value has any influence upon the price an intelligent investor in a free or competitive market is willing to pay for stock. But there had been no empirical evidence to prove or disprove this general proposition which has assumed such direct and implied consequence in all discussions of no-par value stock. Accordingly such a study was undertaken.

---

[g] This advantage, from the corporation's standpoint, of a nominal par value—and consequent disadvantage of no-par value stock—has been thus tersely put. "Psychology is an important factor in all trading, and is especially so in stock trading. Can it be doubted that a share of stock with $100 par value, selling at $1, is more appealing to those of speculative tendencies than the same stock selling at the same price but which had no nominal or par value to suggest a numerical difference."[24]

---

[24] "Par Value and No Par Value Stocks," 22 Coleman Law Rev. 656.
[25] Mead, E. S., Corporation Finance, 45 (1915).

A group of 50 no-par value stocks, quoted on the New York Stock Exchange for varying periods of time, was compared in various combinations with a well-known average of par-value stocks. As, obviously, the same stocks are not both par and no par, the only real basis of comparison will be the relative differences in the two averages. For if the absence of par value has a depressing influence on the market value, as alleged, then this depressing influence will show itself in two ways. The curve representing the average of no-par value stocks will rise slower during the up-swings of the market and decline faster during the down-swings than the curve of par-value stocks. Secondly, the correlation or correspondence between the two curves will be imperfect, that is, the fluctuations will not occur at the same time nor be of the same relative magnitude. In the statistical study just alluded to no conclusion could be reached regarding the first point, as the average of no-par value stocks both rose and fell more rapidly than the par-value stocks. But in regard to the second point—the correlation between the two curves—the results were remarkable. For if the presence of no par value were to have any effect whatever, it would introduce a price determining factor not operating upon the par-value stocks, and in such a case the ups and downs of the two curves would not exactly correspond. Yet they did almost exactly correspond, the variation from perfect correlation being very slight.[h] Consequently it cannot be contended that the absence of par value has any influence in depressing the market value of a stock in a free and competitive market.

---

[h] Tisdel, N. C., No Par Value Stocks, Harvard Graduate School of Business Administration. The standard par-value curve chosen was that of Dow-Jones for 20 industrial stocks, all with par value.

A series of five sets of indices was prepared and monthly price relations were computed, using 50 no-par industrial stocks. Curves (arithmetic logarithms) were constructed. One curve represented 10 no-par industrials from July, 1917, to January, 1923, the longest period over which at least 10 no-par industrial stocks were quoted on the New York Stock Exchange. The other curves, representing respectively 15, 20, and 40 no-par stocks, covered shorter periods. Finally a curve was constructed based on 20 industrial no-par value stocks, each corresponding, so far as type and industry was concerned, with the 20 industrials included in the Dow-Jones list. To abbreviate this summary we shall consider only the correspondence between the Dow-Jones curve with the long curve of 10 no-par stocks (July, 1917, to January, 1923).

Alleged Difficulty of Assessment.—A third objection to no-par value stock has been based on the difficulty of assessment.[i] Both at the organization of a corporation and subsequently during its existence a definite specific capital stock expressed in money constitutes obviously an indisputable basis for corporate taxes, and with the removal of the par value this definite basis of taxation disappears. But this objection is of no significance when it is remembered that the corporate franchise tax can be levied at the inception of a corporation, as it is in many states, at so many dollars or cents per share, and when it is recognized that the basis for assessing an existent corporation, carrying on its business in a lawful manner, is either its actual property or its actual earning power. The amount of its no-par value capital stock is of diminishing importance for taxation purposes the longer a corporation continues in existence because the probable divergence between its assets and its original subscribed capital grows greater. Moreover, irrespective of the particular theory of taxation acknowledged by any legislative body, there is invariably the effort to go behind nominal figures and assess taxes on actual figures as evidenced by property or earnings. The objection, therefore,

---

Relative Fluctuations

	Dow-Jones Par-Value	Ten No-Par Value	% of Change of No-Par Value over Par-Value
Dec., 1917 to Oct., 1919	+ 62.25%	+ 77.71%	124.8
Oct., 1919 to Aug., 1921	− 41.26%	− 51.11%	123.9
Aug., 1921 to Apr., 1922	+ 36.47%	+ 44.91%	123.2

The correlation between the fluctuations in the Dow-Jones curve and the curve of 20 no-par industrial stocks—corresponding to type and industry with the stocks embraced in the Dow-Jones curve—was no less remarkable.

[i] It should be remembered that the uncertainties of the state's taxing power, in case of legalized no-par value stock, were the basis of Governor Hughes' veto of the first no-par value bill passed by the New York legislature. Great care and precision has been exercised since, in all the no-par stock legislation, to preserve and protect the state's rights and powers of taxation. By reason of a literal and purely technical construction of certain tax statutes no-par stock escaped New York and federal transfer taxes for a time.[26]

---

[26] See Moody, W. F., Jr., "The Value of Par Value," 19 Moody's Magazine 129 (1916).

that the assessment of just taxes against a corporation is made more difficult by the elimination of the nominal or par value of its shares is without substantial foundation.[27]

ALLEGED INJUSTICE TO INVESTORS.—A fourth objection concerns itself with the justice to the various groups of shareholders who buy the stock of a corporation at differing prices. It has been suggested that according to the strict interpretation of the corporation statutes in most of the states the shareholders must pay into the corporate treasury the full par value for every share of stock issued.[j] If no-par value stock is allowed this statutory limitation disappears and a corporation may sell its no-par value stock at varying prices, to the evident injustice of those who pay higher prices than others.[28] "There is the possibility of unfairly diluting the stock already issued by subsequent issues at lower prices." [29] No one supposed that a corporation, even with full-paid non-assessable stock, always receives par for its shares. To make any such naïve assumption is to forget the vagaries of stock issues for "property" and "services." As a matter of evident fact the directors of a corporation sell its no-par value stock for its market price, be it high or low. Furthermore, being, under any circumstances, trustees and representatives of the existent stockholders the directors would not sell new stock unless the sale were obviously to the advantage of the corporation and stockholders.[k] The

---

[j] Virginia is the only state of the Union which now (1926) provides for the legal issue of stock at less than par value, without creating a liability to creditors for the difference between the issue price and the par value.

[k] The Railroad Securities Commission[30] passes over this objection in an interesting manner: "The danger of inflation deserves serious consideration. We believe, however, that it is more apparent than real, because shareholders will be jealous of permitting other shareholders to acquire shares in the association except at full market value, and will not permit the issue of such shares to themselves at prices so low as seriously to impair the market or other value of their holdings."

---

[27] For further discussion, see "Taxation of No Par Value Stock," 95 Cent. Law Jour. 241; "No Par Value: Valuation for Franchise Fee Purposes," 19 Mich. Law Rev. 95; Rogers, L. H., "Stamp Tax on Shares of No Par Value," 95 Cent. Law Jour. 448.

[28] See Bonbright, J. C., "No Par Stock," 38 Quart. Jour. Econ. 462 (1924).

[29] Ballantine, H. W., "No Par Stock—Its Use and Abuse," 57 Am. Law Rev. 233.

[30] Report to Congress of Dec. 8, 1911.

two cannot be separated; what is of advantage to the corporation is of advantage to the stockholders. Furthermore, it may well be that under the burden of misfortune and under adverse market conditions the corporation could not realize on its new shares what had been paid in on the old. No theoretical justice to its old stockholders should prevent the corporation from securing new money to maintain its earning power or even its solvency.

This theoretical obligation to sell its stock at the par value may actually work a real hardship or perhaps injustice to the stockholders who may have previously paid par for this stock. For if misfortune overtakes the company, the further sale of stock at par, as a means of extricating itself, is closed. If, for illustration, its managers misjudge the course of the industrial cycle and become overstocked with materials at a time of falling prices, it could not sell its stock at par and the law would not permit the sale below par. Consequently, it must either fail or else sell bonds or notes. In the latter case it has not brought about any permanent remedy for its difficulties and the same peril will threaten when the notes fall due; if bonds are sold bankers will take them only at a great discount or high interest rate which will commit the stockholders, for a long time, to heavy fixed charges. Under any circumstance the legal inability to sell stock below par will force the corporation to adopt an unsound financial policy. Whatever sanctions of justice toward stockholders one adopts, the policy is at least inexpedient to both the corporation and its stockholders.

Alleged Encouragement to Fraud.—A fifth objection to no-par value stock, based on the protection of creditors of a corporation against fraud, is distinctly the most serious one and the objection stressed by all the prominent critics of no-par value shares.[1] The importance of this objection, sufficient in the minds of several authorities to outweigh the advantages of no-par value stock, demands careful consideration. It is based on two closely related presumptions, long recognized in corporation law, which seem difficult to reconcile with stock of no par value. The first is the obligation of the stockholders to subscribe the full amount of their stock subscriptions; and the second is the conception of capital stock as a trust fund for the benefit and protection of a corporation's creditors.[m] Both require that the shares of stock shall have a definite and precise money equivalent so that the stockholder's liability for his original subscription shall be clearly defined and no intricacies of accounting or legal subtlety shall jeopardize the security of the capital trust fund. If stockholders have failed to meet the full par value of their stock-subscriptions, or if, through fraud, they or their directors have misused the capital fund, as a result of which the corporation becomes insolvent, its creditors can hold the stockholders liable to the full par value of their stock subscriptions. If these protective features are real and can be enforced at law, then they afford substantial safeguard to creditors; and if these protections disappear with the money par

---

[1] "Stock without par value renders easy the issue of stock representing no real value. The dangers of the old method are removed. Such stock apparently involves little or no liability. There being no statutory requirement that the par value of the stock shall be paid in, the purchasers and

---

corporate creditors must take their losses without remedy against those who originally issued the stock." [31]

Not requiring a stated capital "makes it possible to throw all the risks and hazards of the business upon the public who deal with the corporation, while the organizers and stockholders are to reap all possible gains and lose little or nothing if the enterprise proves a failure." [32] Probably the full force of this important criticism may be realized best from the number of distinguished students of corporations who have written in opposition to no-par value stock.[33]

[m] Capital stock "constitutes a fund set apart and devoted to the corporate uses and the security of the creditors that the law jealously guards from the encroachment of the directors in the declaration of dividends. . . . Its dedication is irrevocable, and it must ever remain a sum held in trust for creditors, unless some judicial or other process authorized by legislation intervenes." [34]

---

[31] Cook, W. W., "Stocks Without Par Value," 7 Am. Bar Assn. Jour. 534.
[32] Ballantine, H. W., "No Par Stock—Its Use and Abuse," 57 Am. Law Rev. 233.
[33] Among the writers to whom this seems serious are:
Ripley, W. Z., Railroads, Finance and Organization, 91 (1915).
Cook, W. W., 7 Am. Bar Assn. Jour. 534 (1921); *ibid.*
19 Mich. Law Rev. 583 (1921).
Cook, W. W., 1 Corporations, 8th ed. 291.
Bonbright, J. C., "No Par Stock, Its Economic and Legal Aspects," 38 Quart. Jour. Econ. 440 n. (1924).

[34] Smith v. Dana, 77 Conn. 543. See also Reiter, Prosper, Jr., Profits, Dividends and the Law, Chap. IX (1926).

value of the stock, then the legislative sanction of stock of no par value is to be seriously regretted from the standpoint of social welfare.

Unfortunately, however, these means of protection to creditors against unscrupulous promoters and stockholders are theoretical only and unsubstantial in actual practice. Even the "trust fund" theory of capital stock occupies anything but an impregnable position in our corporation law.[n] True, if it can be proved that incorporators, directors, or conspiring stockholders fraudulently over-value the property and services for which stock is issued, creditors are in a position to collect from responsible stockholders their unpaid subscription balances. The laws of all the states, however, in which fraudulently inclined stockholders would be likely to incorporate their enterprises permit directors, usually irresponsible lawyers' clerks, to place any value they see fit on the property and services for which the stock is issued. Unless fraud can be proved—a very difficult task indeed—the stock thereafter becomes full paid and not subject to assessment, no matter how outrageously overvalued the corporate assets might have been. Unless the promoters, even though they have no fraudulent interest, are very careful to observe every technicality of the law so as to relieve their future stockholders of possible assessment, the stock cannot be sold. No one, properly advised, would assume title to shares of stock which might carry with them the liability for future assessment. While there have been a few sporadic instances in which creditors have successfully maintained actions against fraudulent promoters and stockholders for unpaid stock subscriptions, the number is so few as to afford no as-

---

[n] "Perhaps no judicial invention has given rise to as much discussion, or has more unsettled the law than the so-called 'Trust Fund' doctrine concerning capital stock."[35]

---

[35] Wickersham, G. W., "The Capital of a Corporation," 22 Harv. Law Rev. 319 (1906).

Good references quoted by Wickersham on this topic are:

Pepper, G. W., "The Trust Fund Theory of the Capital Stock of a Corporation," 32 Am. L. Reg. N. S. 175.

McMurtrie, R. C., "Is Unpaid Capital a Trust Fund in any Proper Sense?" 25 Am. L. Rev. 740.

Thacher, Thos., "The Law of the U. S. Supreme Court as to Capital Stock Not Fully Paid," 25 Am. L. Rev. 946.

sured protection to creditors worth considering. Indeed, so many are the technical loop-holes and so difficult is it to prove fraud against a culprit who may be financially responsible that creditors would be advised not to assume even the costs of litigation although fraud was glaringly apparent to the uninitiated.[o]

The conception of the capital stock as a trust fund for protecting the creditors of a corporation does not, on analysis, produce any more hopeful result.[p] Directors and stockholders may burden this trust fund with encumbrances, debts, and indirect obligations, and yet go unpunished. So long as their acts do not perpetrate a fraud upon the creditors, the trust fund may vanish before their eyes, like snow on a spring morning, while the creditors look on helplessly. The only way in which the conception of stockholders' capital as a trust fund may help the creditors is when the directors declare dividends out of it rather than out of surplus. In a few cases outraged creditors have been able to force directors and stockholders to return dividends paid out of capital. Such cases are, however, rare. The whole question of what constitutes net earnings and surplus involves disputed matters in the theory of accountancy, upon which experts differ, and unless the payment of the unearned dividends is glaringly fraudulent creditors have great difficulty in translating questionable theories of accounting and acts of doubtful expediency into grounds for successful legal actions. In all other respects the idea of the capital stock as a trust fund for the benefit of creditors is one of those legal fic-

---

[o] The classic case is the so-called Harper case,[36] in which creditors were able to collect from stockholders. But the circumstances and conditions surrounding this instance were so unusual that the case affords a weak reed indeed for misguided creditors to rest their confidence upon. The simple fact that the case is made so much of is an indication that it stands quite alone.

[p] Cook, the most valiant defender of par value and the sacredness of the trust fund conception of capital stock, is forced to admit "the bewildering maze of decisions on liability for the par value of stock."[37] Note also the legal references on the "Trust Fund" theory cited in note 35.

---

[36] Lloyd v. Preston, 146 U. S. 630. For description see also Ripley, W. Z., Railroads, Finance and Organization, 90 (1915).

[37] Cook, W. W., "Stocks Without Par Value," 7 Am. Bar Assn. Jour. 534.

tions which, while historically significant, have little real vitality when applied to present day business corporations as recognized by statutes and court made law. Even the most distinguished authority on corporation law, who looks with regret upon the substitution of no par for par stock, acknowledges that the trust fund conception of a corporation's capital stock has become obsolete.[38]

Advantages of No-Par Value Stock—CONFORMITY TO FACT.—Turning now to the other side of the picture, there appear to be certain distinct advantages in the no-par value stock. The first of these is the stricter conformity to actual facts. This will appear from a brief analysis of what, in actual practice, constitutes the capital of a corporation. When a corporation is organized the proprietary interests, to be represented by the stockholders, contribute a certain fund of money, physical property, intangible rights, business experiences and business abilities. This composite fund represents the objective basis on which the corporation will undertake to do business. No human being can properly evaluate it, particularly because the most valuable part of the inheritance of the new corporation is the intangible property and business abilities dedicated to its use. To allege, therefore, that the exact monetary value of this aggregate of tangible and intangible entities can be set down on paper in the form of a definite capital stock of a definite money equivalent is either sophistry or deceit. In a few cases, such as banks and insurance companies, when the corporation is born with a definite fund of money, there is some measure of truth and accuracy in assuming that the capital stock has an exact money equivalent. These cases, however, are few compared with the vast number of incorporations of public utility and industrial enterprises in which it is utterly impossible to place upon the various kinds of property acquired by the infant corporation anything except an arbitrary and fictitious value, —at best, an intelligent guess, and at worst, a fiction prompted by motives of misrepresentation and fraud. To publish this arbitrary and fictitious value to the creditors or the future stockholders, as if based on an actual and intelligent appraisal of substantial objective importance to the community, is to clothe an uncertain fiction in the garb of reality. This is one of the deadly sins of modern finance.[q]

---

[38] W. W. Cook. See references cited in note 33.

As soon as the new corporation begins to undertake business operations whatever correspondence between the value of its property and its capital stock may have existed in the beginning, is lost immediately. Some of these operations result in a profit, in which case the corporate property is increased while the original capital stock remains the same; some operations result in a loss, and a discrepancy between the property and the capital stock arises in the opposite direction. The important thing to observe is that the equality between property and capital stock, however justified at the beginning, is upset by the very operations for which the corporation was organized. This discrepancy, therefore, is inherent in the nature of the business corporation's activities and not merely an accident. The whole modern industrial world of which the business corporation is so important a part is in constant change. Economic values are never static.

These excuses for misrepresentation no longer exist if the shares of stock have no par value. There is no attempt to place an arbitrary money equivalent on various types of property and intangible contributions, no attempt to assign to human judgments an appearance of exactness and truth which the complexity of our industrial life precludes.

---

[q] If no-par stocks are issued "working capital may be provided without the necessity of inflating the book value of assets. . . . The credit of the corporation is based upon sounder and a more substantial valuation of assets and in consequence will probably receive greater confidence on the part of investors and creditors than would be accorded the same corporation without such assurance."[39]

Machen says: "Corporations get credit either on the actual value of their assets, or on the integrity and standing of their officers and managers, and not at all on the nominal value of their stock."[40]

---

[39] Hurdman, F. H., "Capital Stock Having No Par Value," 28 Jour. of Accty. 245.
[40] Report of the Committee on Uniform Incorporation Acts, October, 1920.

There must be some kind of proprietary interest to hold title to the property of the corporation and act as its residual legatee. This is obvious. But the apportionment of this proprietary interest involves only the division of earnings and of assets in the proper relative proportion of ownership. This is exactly what is accomplished by no-par stock; it is evidence of a proportional interest in the proprietorship of the corporation, arising from the relative—never absolute—contributions to the joint stock of the enterprise. Every known privilege and responsibility adhering to stock ownership is based on proportionate interest in the corporation, so that all these privileges and responsibilities can be indicated by no-par value shares quite as well as by shares with par value. In addition, there has been no enforced appraisal necessary, with the accompanying misrepresentation, on the part of incorporators, directors or creditors, of property the value of which they have, at best, only a vague conception.

This advantage of no-par value stock is not merely one of convenience to relieve corporate stockholders and officials of responsibilities but it is one of important social significance. Among the reasons that account for the widespread suspicion, distrust and dislike of corporations among laboring men and people of narrow economic vision is the shroud of mystery that seems to surround them. The procedure of organization in which lawyers' clerks, as directors, appraise property ostensibly worth millions of dollars without the least knowledge of what the property consists—much less having seen it—visits upon the birth of the corporation a well-founded suspicion of laxity if not of dishonesty. Securities are brought into existence by the mere fiat of ignorant and irresponsible clerks. Someone, probably equally ignorant of their true value, tries to assign to these shares an arbitrary money value and, in all earnestness, treats such money values as real. He is called an accountant. While the workingman and his demagogue are not always able to put their fingers on the source of their suspicions, they are, nevertheless, conscious that something is rotten in the state of our corporate structure and this feeling is made to extend to corporate accounting and administrative policy. If, on the other hand, no such fictitious valuation is required, then the stockholders are regarded from the beginning merely as owners of the enterprise entitled to share in its profits, which is really the case. The workingman can understand this. There is nothing to arouse suspicions and mistrust in a group of men merging some of their property in a joint undertaking and sharing in the results, be they good or indifferent. All kinds of unions and associations are no less than this. In brief, the removal of the pretended par value of corporate shares is one step in the direction of interpreting the economic significance of corporations to all classes of society.

STIMULUS TO STUDY BY INVESTOR.—When the removal of the par value of corporate shares was first discussed the advocates alleged that without nominal value proclaimed on the corporation's balance sheet and on the certificate of ownership investors would be under the necessity of investigating more clearly the actual intrinsic value of the corporation's shares. It is to be hoped that this is true, in spite of the fact that certain recent writers try to reduce the argument to an absurdity.[r] The

---

[r] "One might suppose that a prospective purchaser of the stocks or bonds of a California power company, not being misled by a fictitious face value, would take a trip to the western coast in order to inspect the property in which he is invited to take an interest. On the basis of this direct inspection he would then form his own estimate as to whether the stock is worth fifty dollars a share, or as to whether the bonds are a good purchase at 85."[41] Such an assumption of an actual visit to the property may be extravagant. But unless the so-called investor makes some kind of an investigation, involving a trip to an engineer's report or an auditor's statement or public utility expert's ante-room, he is not investing but merely gambling. Difficult as it is and probably always will remain for the ordinary genus homo to form a worth-while and balanced judgment of any investment—even that of the local water company in his own town—the whole progress of wise investment carrying with it the conservation of social capital demands that the prospective investor should actually do some investigating on his own behalf. It would seem that this is so self-evident that nothing is gained by making ridiculous the almost hopeless handicaps that actually beset the ordinary investor when he tries to do some investigating and thinking for himself.

---

[41] Bonbright, J. C., 38 Jour. Quart. Econ. 447 (May, 1924).

conservation of social capital requires intelligent investing. It requires that the responsibility for the selection of investment securities be pushed back upon the shoulders of the investor himself, however disinclined he is to assume the responsibility. Anything that will tend to force him to investigate the intrinsic merit of his securities, even against the inertia of his own impotence, will improve the general level of investment intelligence. In spite of the allegation that prospective investors disregard the published par value and do not connect in their minds the nominal with the real, one hazards the guess that this is not true. Without this par value there is no standard, however vague and uncertain, and the investor is without an anchor. Even the balance sheet if properly drawn gives him little assistance.[s] He is forced to investigate the earnings of the corporation, present and past, the history of the corporation and its managers, its standing in the industry and the value of its shares with reference to current and future interest rates, as they are affected by the industrial cycle. These factors and others like them determine values, and anything that forces the investor to seek for them is good.[t] Perhaps, it is too much to hope that the removal of the nominal value of corporate shares will push the investor along the path of self-enlighten-

---

[s] There are various ways by which no-par value stock may be brought on to the balance sheet.[42] The best one is not to bring it on at all—merely allowing an ambiguous entry such as profit and loss to represent the difference between the assets and "owed to others" liabilities. The number of no-par value shares can then be stated as a note. In this way the accountant is not forced to set up any equivalent whatsoever between property or assets on the one side and no-par shares on the other.

[t] "The very fact that the stock has no designated money value should at once cause a prospective investor to inquire whether by paying the price asked, he is getting the proper *quid pro quo* and the most natural thing for him to do would be to inquire into the actual and real value of the corporate assets. On the other hand the fact that the shares of stock are represented to be of a par value of $100 is likely, in the average run of cases, to cause the buyer to forego an investigation into the merits of the corporate scheme, and when offered the stock at 90 he assumes he is getting a bargain. It is the dollar sign which lulls him into a sense of security and self-satisfaction."[43]

---

[42] Montgomery, R. H., Financial Handbook, 563 (1925).

[43] Hollen, R. H., and Tuthill, R. S., "Uses of Stock Having No Par Value," 7 Am. Bar Assn. 579. The part that par value plays in deceiving investors is often exaggerated as it is in this quotation.

ment, but—granting no serious objection—it is at least worth a trial.[u]

It has been suggested that perhaps the relative sensitiveness of the market price of no-par value shares, as compared with par value shares, might throw some light on this question. Very careful studies through a period of some years, however, have failed to indicate that the arithmetic average of the market prices of a group of no-par value stocks is any more or less sensitive to changes in earnings or dividend rates than a group of par value stocks.[46] Although the investigation was as exhaustive as the material available permitted, a comparison between what one might call the index of sensitiveness of the two classes showed no constant variation that could not be fully accounted for from the difference of character of the securities employed and errors easily attributable to statistical method. We are forced to record, therefore, that so far as effecting a more sensitive adjustment between the more obvious changes in fundamental values and the market price of shares the removal of the par value seems to have accomplished nothing.

Accordance with Economic Theory.—There is still another consideration, in connection with a discussion of no-par value shares, which is worthy of at least passing notice. The use of shares without par value is in accord with the fundamental conceptions of economic theory. Ever since Adam Smith's early discussion of the character of the business

---

[u] "The fact that a share of stock is of $100 par value or any other par value is not noticed when the more prudent are determining the advisability of an investment. . . . There exists, however, a large class of small investors and creditors who look no farther than the dollar mark on the stock . . . they take for granted that the corporation has assets to back this up. . . . It is this class of investors that the non-par value law protects.[44]

". . . . . the omission of the impressive figures once emblazoned upon every stock certificate serves as a warning that a certificate of stock is not a promise to pay to the holder thereof the amount expressed upon its face or a reasonable rate of interest thereon." [45]

---

[44] Pierson, W. D., "Stocks Having No Par Value," 17 Ill. Law Rev. 173.

[45] Harno, A. J., and Rice, R. F., 56 Am. Law Rev. 321 (1922).

[46] Tisdel, N. C., No Par Value Stock, Harvard Graduate School of Business Administration (1922).

man's risks there has been a growing consciousness, on the part of economists, that the income return to the proprietors of a business was of the nature of a reward for assuming the risks incident to business and for managing the enterprise with sufficient skill and forethought to produce a net gain rather than a net loss. This reward was of the nature of true profits paid to them because of the skillful administration of the risks inherent to business enterprise. It was in no sense a compensation for the use of their capital or that of others. It was not interest. The representation that the proprietors of the business had an actual money or property investment in the business placed them in the light of capitalists entitled to interest rather than profits; the acknowledgment that their common shares involved little, perhaps no, actual investment in the business was an acknowledgment that the line between the capitalist of the business and the managers was clearly drawn and that common stock represented the right on the part of the managers to participate in profits, provided their management proved successful. In that sense, therefore, no-par stock, as differentiated from bonds or preferred shares of a money par value, is strictly in accord with the economic theory which insists on the distinction between interest paid for the use of capital and profits paid for the exercise of superior business skill.

CHAPTER III

STOCKS WITH PREFERENCES

Preferences.—The fundamental and essential difference between bonds and stocks is that the former represent promises to pay a certain sum of money and interest upon it at a definite rate, and the latter partnership rights to participate in earnings. But in the evolution of financial expedients there has been a tendency to set aside this simple and primitive distinction and create forms of securities which are intermediate between bonds and stocks. One financial writer called them compromise securities.[1] The income bond familiar to all types of investors belongs to this intermediate zone; so do the various forms of preferred stock now frequently issued; so also do guaranteed stocks and the Class A common stocks which sprung into prominence after 1923.[a] So various and individual, however, are

---

[a] It has been said that American corporate finance is more intricate than that of any other country. The relative truth of this statement depends on the point of view. It is true that American finance has resorted to the most intricate system of intercorporate superposition of one corporation over another, but English finance is more complicated in the number and conditions of issues of different securities of a single corporation. Few, if any, financial plans show greater intricacy than that of the Underground Electric Railways Company of London, Ltd., arising from a combination of American and English financial ingenuity. The following is the order of claims on income from dividends received by the company from the stocks of its subsidiary companies:

1. 4½ per cent Collateral Trust Bonds
2. 6 per cent First Cumulative Debenture Income Stock
3. 6 per cent Non-cumulative Income Bonds
4. Class A Ordinary Shares (one-third profits)
5. Ordinary Stock 5 per cent Cumulative
6. Contingent Certificates 3 per cent (not put on balance sheet)

A similar complex structure occurs in the financial plan of a large soap manufacturing company:

5% First Preference Shares	£2,000,000–0–0
5% "A" Preference Shares	2,000,000–0–0
6% "B" Preference Shares	1,000,000–0–0
6% "C" Preference Shares	4,750,000–0–0
15% Preferred Ordinary Shares	2,074,400–0–0
20% Preferred Ordinary Shares	100,000–0–0
5% "A" Preferred Ordinary Shares	77,438–5–0
Ordinary Shares	2,000,000–0–0
	£14,001,838–5–0

[1] G. G. Henry.

the features which make it possible to call an issue of stock "preferred," that no definition at once general and exact is possible.

Types of Preference Issues.—In its essential meaning, any issue of stock, specifically called guaranteed, preferred, preference, or Class A, represents a particular portion of the capital

---

That there may be marked differences in the amount and par values of the different issues is shown by the capitalization of the Boots Pure Drug Company.

BOOTS PURE DRUG COMPANY

No. of Shares	Name	Par	Amount
100	"A" Preference	£100	£ 10,000
250	"B" Preference	£100	25,000
100,000	"C" Preference	£ 1	100,000
120,000	"A" Pref. Ordinary	£ 1	120,000
245,000	"B" Pref. Ordinary	£ 1	245,000
400,000	"C" Pref. Ordinary	£ 1	400,000
500,000	"D" Pref. Ordinary	£ 1	500,000
1,000	Ordinary	£100	100,000
			£1,500,000

With the presumption that the financial plans of English corporations are more complex than those of American corporations and employ, ordinarily, a greater variety of securities, a study was made of the financial plans of one thousand English corporations.[2]

The following table shows the distribution of stock issues:

COMPANIES CLASSIFIED BY ISSUES OF CAPITAL STOCK

No. of Issues	No. of Companies
1	253
2	622
3	95
4	21
5	5
6	2
7	1
8	1

On the other hand the debt obligations indicate a simpler structure among English than among American companies—particularly American railroads. Of the 1,000 companies studied 646 or nearly two-thirds had no debt obligations in their financial plan; 286 companies had only one issue; 56 had two issues; 8 had three issues; and 4 had four issues. None had more than four issues of bonds of any kind.

In all probability a differentiation in share capital first arose in England (Economist, 739, 1900) and was a symptom of the railroad promotion period of the early forties, having been successfully used first by the Great Northern Railway.[3] For an excellent brief recent account of British financial expedients, see series of articles in the *Financial Review of Reviews*, beginning with May, 1918, by Stiles, C. R., "The Alphabet of Investment."

---

[2] Bricker, G. W., Jr., A Study of English Capitalization, Harvard Graduate School of Business Administration (1925).

[3] Ripley, W. Z., Railroads, Finance and Organization, 95 (1915).

shares which has been endowed with certain supplementary assurances, preferences, or limitations. Its existence in any one case is a ground for presuming that there exist at least two classes of capital stock, one of which possesses certain rights that the other does not possess.[b] The kind and extent of the rights, privileges, limitations, and exemptions that belong to preference stocks vary with the different issues. One cannot infer merely because a stock issue is called preferred, that it is possessed of any one set of preferences, although there are certain forms which are of customary occurrence. The rights of any special class of stockholders are, in each case, defined by the charter and by-laws of the corporation and constitute the terms of a contract between the corporation and its preferred stockholders. For the convenience of exposition these preference issues of shares can be treated conveniently under these headings: guaranteed stocks, preferred stocks and Class A common stocks.

Guaranteed Stocks.—Guaranteed stocks owe their origin, ordinarily, to consolidations. And it is especially in railroad consolidations that they are met with most frequently. In the great majority of cases they represent the remaining, outstanding shares of small roads which have been incorporated into larger systems.[4] Instead of purchasing the shares of the smaller road the promoters of the consolidation or the managers of the buying railroad system secure from the directors and officers of the consolidated road an agreement to pay a certain dividend on the stock of the smaller road. Such an agreement when properly entered into constitutes a legal contract enforceable against the consolidated company, and the payment of such guaranteed dividends are quite independent of

---

[b] Even this presumption is not correct in every case, as the entire outstanding capital stock of the Great Northern Railroad is preferred. So also was that portion of the stock of the Fitchburg Railroad, which was in the hands of the public prior to the first reorganization of the Boston and Maine system. This illustrates the difficulty of forming generalizations concerning the preferences of so-called preferred stocks.

---

[4] This subject of the purchase of a railroad by guaranteeing dividends on the stocks of the acquired road is discussed at some length in Book IV, Chapter IV.

the earnings of the small road which originally issued the shares. In a very real sense, therefore, such guaranteed dividends are a "fixed charge" of the consolidated road; and the failure to meet these dividends would create a claim against the consolidated road parallel with the unsecured debt.

Guaranteed Stocks *vs.* Guaranteed Bonds.—The holder of a guaranteed stock is in a position analogous to that of the holder of a guaranteed bond. There are, however, two very marked differences—the one in theory and the other in practice—which should be carefully observed. The difference in theory between a guaranteed bond and a guaranteed stock is that the former is an obligation enforceable as any debt against the assets of both the original corporation and of the guaranteeing corporation. In other words, if, in the event of a receivership of the consolidated guaranteeing corporation and the subsequent sale of its assets, not enough remained after the satisfaction of the prior claims to pay the full claim represented by the guaranteed bonds, then the holder of a guaranteed bond would still have a claim against the small corporation originally issuing the bonds. It is, as it were, a joint debt enforceable against either or both corporations. And if, as is generally the case, the bonds were originally secured by a first mortgage on specific property, the holder of the guaranteed bond has, in reality, a specific lien on certain property and a general lien on a great deal more property. Moreover, what is perhaps quite to the point, the specific lien on a small amount of property is more valuable to the bondholder than a general lien on a large amount.

In the case of the guaranteed stock this dual obligation is absent. The payment of the guaranteed dividends represents a contract between the consolidated corporation and holders of the guaranteed stock, but this in no wise obligates the issuing corporation—the small company absorbed in the consolidation—to meet the payment if the contract of guarantee is repudiated or cannot be enforced. True, under ordinary circumstances the stockholders may themselves, through directors of their own election, declare and pay themselves dividends out of the earnings of the small corporation, provided there are any. But the individual, minority stockholder cannot enforce any claim to the earnings, at law or in equity, and he is helpless to reach back to the actual property of the corporation of which he is a stockholder.

There is also a marked practical difference between guaranteed bonds and guaranteed stock. While both the small and the large corporations, the original issuing corporation and the guarantor, are prosperous it is quite immaterial whether the payment is interest on the subsidiary company's bonds or dividends on its stock. But at the time of reorganization, following failure, when some sacrifices have to be made by some of the security holders as is invariably the case, the question of the relative priorities among the different classes of security holders becomes of imminent vital importance. Under these circumstances more sacrifices seem to be expected of all stockholders than would be expected of bondholders in analogous positions. The reasons that explain this attitude on the part of reorganization managers are not always thoroughly rational nor based on legally justifiable grounds. Nevertheless, they exist—the result, probably, of the assumption that shareholders, whatever their legal position may be, should be called upon to bear some of the brunt of failure, even though they have long since ceased to have a voice in the management.

Responsibilities of Holders of Guaranteed Stocks.—This generalization applies to guaranteed stocks. No matter how secure the holder of a guaranteed stock may be with reference to the assets of his corporation or how strategically important his property may be in the whole corporate situation, he will be asked to undergo sacrifices in the reorganization which, were he a bondholder in the corresponding position, never would have been suggested. An example from recent railroad reorganization illustrates this simple fact. In the corporate organization of the Boston and Maine Railroad, at the time of its failure in 1916, there were no less than 15 guaranteed stocks of major importance and some which had, as it were, a double guarantee, the dividends being guaranteed both by the Boston and Maine itself and one of its major subsidiaries. Of these major subsidiaries the most important by far from a strategic point of view was the Fitchburg Railroad. Except in a roundabout fashion through Montreal or north of Lake Champlain the Fitchburg Railroad represented the only opportunity for the Boston and Maine to deliver its traffic to the trunk lines at the Hudson River gateway. As such it was a part of the system of very great value, and the holders of the Fitchburg Railroad's guaranteed stock were in a very strong position. The guarantee of their dividends represented a claim against the assets parallel to the debenture bonds of the whole system (and much of the system was unmortgaged), and in addition the Fitchburg Railroad stock represented the equity ownership of the most important connecting link of the Boston and Maine's whole system. The stockholders, once in possession of this road, could, unquestionably, operate it in conjunction with the Delaware and Hudson or one of the trunk line roads—even if one of these roads had been unwilling to acquire the Fitchburg on terms quite as favorable as those by which the Boston and Maine held it. All this must have been transparently clear to the reorganization managers of the system as well as the Fitchburg stockholders' protective committee. And yet in the reorganization plan these stockholders were given almost worthless preferred stock of the reorganized company, junior to the bonds of every description. Apparently the members of the committee chosen to protect the Fitchburg stockholders showed gross incompetency, if not dereliction, in their obligation to the stockholders whom they were supposed to represent.

The case of the Fitchburg Railroad shareholders is not unusual. During the long receivership of the Chicago and Alton Railroad negotiations were pending with the shareholders of the Chicago and Joliet, looking to some sacrifice in the forthcoming reorganization. Yet the little road was the most valuable part of the entire Alton system; and the guaranteed stock of the Chicago and Joliet Railroad was outstanding at only $1,500,000 notwithstanding it represented, probably, the most valuable part of the entire system of the Chicago and Alton Railroad.

Yield of Guaranteed Stocks.—On the basis of these principles it would be reasonable to expect that guaranteed stocks would sell on the open market at such prices that the yield to investors would be distinctly greater than that derived from guaranteed bonds, and somewhat greater than that from the general mortgage bonds of the consolidated company. In fact, in New England down to 1912 the guaranteed stocks of the New England railroads had such a position in the minds of New England investors, particularly lawyer-trustees, that they commanded a market price conspicuously greater than their intrinsic value warranted. But this attitude was by no means universal.

In order to discover the actual investment status of guaranteed stock throughout the country an exhaustive study was undertaken of 30 guaranteed stocks included in the financial plan of railroads located in all sections of the country. The investment yield of these was compared first with the yield on guaranteed bonds of the same system and secondly with the yield on the great general mortgage bonds of the system.[5] The study covered the quarter century from 1900 to 1925. Only the high-grade guaranteed stocks were included, and of these only a few were those of systems whose general credit was affected by special circumstances such as failure or consolidation. These few special cases were the best of their kind and were included so as to make the list a fair sampling of guaranteed issues.

The study shows that the quarter century is to be divided into three periods with respect to the relative yields on guaranteed stocks, guaranteed bonds and general mortgage bonds of the same system.[c] The first period extends from 1900 to

---

[5] A. J. Friedlander, Harvard Graduate School of Business Administration (1925).

---

[c] The guaranteed stocks used may be of some interest as showing the nature of the material used in the study.

GUARANTEED STOCK	GUARANTOR	GUARANTEED BOND USED FOR COMPARISON	CONSOLIDATED COMPANY BONDS (In case several were used one only is mentioned as illustration)
Connecticut and Passumpsic R. R.	Boston & Lowell and Boston & Maine	Conn. and Pass. 1st 4s 1943	B. & M. General Debentures
Old Colony R. R.	N. Y., N. H., & H.	Old Colony Deb. 4s 1938	N. Y., N. H. & H. Deb. 4s 1947
Cleveland & Pittsburg	Pennsylvania	Cleveland and Pittsburg 4½s 1942	Penn. Co. 1st 4s 1921 and 3½s 1941
Elmira and Williamsport	Northern Central and Pennsylvania	Elmira & Williamsport 1st 6s, 4s ex. 1950	Penn. Cons. 4s 1943
Pittsburg, Fort Wayne & Chicago	Pennsylvania	None	Penn. Cons. 4s 1943
United New Jersey R. R. & Canal	Pennsylvania	United N. J. R. R. and Canal 1st 4s 1923-1944	Penn. Cons. 4s 1943
Camden & Burlington County	Pennsylvania	None in hands of public	Penn. Cons. 4s 1943
Beech Creek R. R.	N. Y. Central & H. R. R. R.	Beech Creek 1st 4s 1936	N. Y. Central & H. R. Ref. 3½s 1997
Boston & Albany	N. Y. Central & H. R. R. R.	B. & A. 4% Deb. 1913, 3½ Deb. 1952	N. Y. Cen. & H. R. R. R. Ref. 3½s 1997
Canada Southern	Michigan Central (N. Y. Central)	Can. Sou. 2d 8s 1913, Cons. 5s 1963	Michigan Central 1st 3½s 1952
N. Y. & Harlem	N. Y. Central & H. R. R. R.	N. Y. & Harlem 1st 3½s 2000	N. Y. Central & H. R. R. R. Ref. 3½s 1997
Morris & Essex	D. L. & W. R. R.	Morris & Essex 1st 7s, 1915, and Ref. 3½s 2000	D. L. & W. 7s down to 1907—none thereafter
New York, Lackawanna & Western	D. L. & W. R. R.	N. Y., L. & W. 1st 6s 1923, Ref. 1973	D. L. & W. 7s down to 1907—none thereafter
Utica, Chenango & Susquehanna Valley	D. L. & W. R. R.	None	D. L. & W. 7s down to 1907—none thereafter
Catawissa	Philadelphia & Reading	Catawissa 1st 4s 1948	Reading Gen. 4s 1997
North Pennsylvania	Philadelphia & Reading	North Pennsylvania 1st 4s 1936	Reading Gen. 4s 1997
Delaware and Bound Brook	Philadelphia & Reading	Del. & Bound Brook 3½s 1955	Reading Gen. 4s 1997
Little Schuylkill Navigation Rd. & Coal Co.	Philadelphia & Reading	None	Reading Gen. 4s 1997
Mine Hill and Schuylkill Haven R. R.	Philadelphia & Reading	None	Reading Gen. 4s 1997
Albany & Susquehanna	Delaware & Hudson	Albany & Susq. 6s & 7s 1906 and 3½s 1946	Del. & Hudson Penn. Div. 7s 1917—Ref. 4s 1953
Rensselaer & Saratoga	Delaware & Hudson	Rens. & Saratoga 7s 1921 6s 1941	Del. & Hudson Penn. Div. 7s 1917—Ref. 4s 1953
Atlanta & Charlotte Air Line	Southern	At. & Char. 1st 7s 1907, ex. 4½s 1920, 1st 4½s 1944	Southern 1st cons. 5s 1994
Mobile & Birmingham	Southern	Mobile & Birmingham 1st 4s 1945	Southern 1st cons. 5s 1994
North Carolina R. R.	Southern	None	Southern 1st cons. 5s 1994
Southwestern of Georgia	Central of Georgia	None	Central of Georgia 1st 5s 1945

1906. It is characterized by low yields on all forms of high grade investment securities. During this period the yield on guaranteed stocks averaged 3.91 per cent; that of the large general mortgage bonds of the same system 3.66 per cent and that of the guaranteed bonds of the same system 3.58 per cent. The second period, from the panic of 1907 to 1916, is characterized by a steady upward trend of investment yields. During this period the guaranteed stocks averaged 4.49 per cent, that of the large general mortgage bonds 4.32 per cent, and that of the guaranteed bonds 4.17 per cent. During the third period four of the railroad systems—having each one example of a guaranteed stock—met with financial reverses. As a whole the period was characterized by wide fluctuations in the yields on railroad securities. Nevertheless, the yields on guaranteed stocks remain consistently higher than those of general mortgage bonds and guaranteed bonds—5.87 per cent compared with 5.51 per cent for the general mortgage bonds and 5.31 per cent for the guaranteed bonds. If, however, the securities of the third class, belonging to the roads that suffered financial disaster, were entirely omitted from consideration, the relative positions of the general mortgage bonds and the guaranteed bonds would be reversed.[d]

Perhaps the noticeable result of the study is that there is

---

[c] *(Cont'd)*

GUARANTEED STOCK	GUARANTOR	GUARANTEED BOND USED FOR COMPARISON	CONSOLIDATED COMPANY BONDS (In case several were used one only is mentioned as illustration)
Augusta & Savannah	Central of Georgia	None	Central of Georgia 1st 5s 1945
Chicago, St. Louis & New Orleans R. R.	Illinois Central	Memphis Div. 1st 4s 1951	Ill. Central 1st 4s 1951
Peoria & Bureau Valley	C. R. I. & Pac.	None	C. R. I. & Pac. Gen. 4s 1988
Joliet & Chicago	Chicago & Alton	None	Chicago & Alton 3s 1949
Kansas City, St. Louis & Chicago	Chicago & Alton	None	Chicago & Alton 3s 1949

[d] For the period 1916 to 1925:

	Including All Securities Used in Preceding Study	Omitting Securities of Railroad Systems Which Met Financial Difficulty
Guaranteed Stocks	5.87	5.64
General Mortgage Bonds	5.51	5.03
Guaranteed Bonds	5.31	5.29

no greater divergence in yield between the guaranteed stock and the other senior securities of the larger railroad systems. This is probably explained by the fact that, until the difficulties of the Boston and Maine Railroad, the history of the guaranteed stocks had been quite uniformly favorable. Also—and this feature is made much of by investment bankers selling guaranteed stocks—the charges on the leased lines are considered by the railroad accountants as operating expenses, and are deducted before the charges on the funded debt. This practice is countenanced by the Interstate Commerce Commission's system of accounting. It gives a seeming security to the guaranteed stocks not in the least consistent with their legal position.

Preferred Stocks—Original Purpose.—Turning now to the other types of preference stocks it should be noted, at the outset, that the purpose underlying the vast majority of preferred and "Class A" stock issues is the promise of greater regularity of dividends than would be possible with common or ordinary stock.[6] To attain this end the preference stockholder has ordinarily the first claim to earnings.[7] Beyond this general characteristic there is little that is the same among all preference stocks.

The simplest type of these preference stocks is the simple unadorned preferred stock; it is preferred without any attendant frill. Such, for the most part, are the preferred shares of the industrial combinations issued before 1900. The preference consists merely of the promise on the part of the corporation to pay the preferred shareholder dividends before the payment of dividends to the common shareholder. And in return for this preference the preferred shareholder is ordinarily limited to the amount of his dividends, so that if the corporation is unusually successful he may not claim any share of the earnings beyond the fixed rate. To insure this fixed rate, even in scant years, he is presumably protected by the large investment of the common shareholders, which acts as a buffer to insure regular dividends to the preferred shareholders. Thus, for example, the actual property of the International Harvester Company at its formation amounted to approximately $126,000,000, against which was issued $120,000,000 stock. Subsequently, after the accumulation of a surplus, the stock was divided into $60,000,000 preferred and $60,000,000 common, so that the preferred stock had unquestionably at least an equivalent amount of common stock investment behind it.

---

[6] For careful and detailed reasons to explain the occurrence of preferred stocks in railroad finance, see Ripley, W. Z., Railroads, Finance and Organization, 97 (1915). Perhaps he overemphasizes other causes than reorganization.

[7] By no means universal. Exceptional case of the American Brake Shoe and Foundry Company to be noted later.

False

Pseudo-Preferred Stocks.—This in brief was the original intent of preferred stock, but during the last quarter century, especially in the financing of industrial and public utility enterprises, preferred stocks have been used for the purpose of enlisting capital from the public on what appear to be liberal terms, in such a manner that the control of the enterprise is held by an issue of common stock which stands for no investment. Preferred stock, issued under such conditions, is merely common stock with all the attendant risks and none of the advantages, since the holders of the so-called common stock have entire control, with no actual investment in the enterprise. The simplest case of this character is represented by a financial plan in which the tangible assets are exactly represented by preferred stock and the common stock is issued for control purposes only.

At the promotion of the United States Leather Company in 1893, there was acquired approximately $62,000,000 of tangible assets against which was issued $62,000,000 of preferred stock and $62,000,000 of common stock. During the latter part of the period of industrial promotion from 1897 to 1902 it came to be the regular acknowledged practice, considered by promoters as conservative, to issue preferred stock to the full value of the assets and an equal or greater amount of common stock to stand for business good-will. Extreme cases of financial dilution are represented by a few industrial promotions in which the preferred stock had little substantial property behind it, and the common stock none at all. Thus the Union Bag and Paper Company was organized in 1899, with approximately $6,500,000 property. Against this was issued $11,000,000 preferred and $16,000,000 common stock. In neither the sole leather or paper bag promotion could it be said that the patents or trade marks had any substantial value.

Fundamental Legal Import.—The legal status of the preferred stockholders is always to be borne in mind. From the legal point of view it should be remembered that a preferred shareholder is just as much a shareholder, in contrast to the creditors of the corporation, as the common shareholders. The only distinction of his position lies in the explicit provisions of the articles wherein his preferences and limitations are enumerated. These articles are included in the original articles of incorporation or by-laws, or are represented by a vote of the shareholders of the corporation. They represent, in effect, a contract between the corporation and the preferred shareholders; and any rights which the shareholders think they possess, distinct from their rights merely as common shareholders, must be explicitly expressed in this contract. [illegible]

aa to 3-

Conditions of Issue—Four Ideas.—The conditions and [illegible] limitations embodied in the contract covering the issue of preferred shares may be grouped, roughly, around four central ideas. There are first, those conditions having to do with the redemption of the preferred shares either under prearranged conditions or at the liquidation of the corporation; and closely allied with these conditions of redemption or retirement is the statement of the lien of the preferred stock in case the corporate assets are sold under an order of the court or otherwise disposed of. There are secondly, those conditions having to do with the lien on earnings. There are again, those conditions having to do with the protection of the outstanding preferred stock from future issues of other securities having a lien on assets or earnings superior or parallel to it. Finally, there are those conditions having to do with the participation of the preferred stock in the management of the corporation. All privileges and limitations of preferred shareholders come under one or another of these categories. A detailed consideration of these contractual provisions is quite as significant from the investment point of view as from the legal or economic.

A Study of Cases.—Any study of the conditions or limitations under which preferred shares have been in the past issued and are being issued at the present must be based on a statistical examination of actual cases. Such an examination has been undertaken at three different times with slightly different purposes in view. In June, 1916, just prior to the numerous issues of war-time preferred stocks, a tabulation and comparison of all the preferred stock issues then listed on the New York Stock Exchange was undertaken. Owing to the date selected the numerous "war industrial" preferred stocks and those issued after the Armistice were not included, so that the study might be said to be indicative of pre-war practices governing preferred issues.[e] Later, in June, 1920, a special study was made of the post-war industrial preferred shares. This was confined to one hundred typical issues, both large and small, created in the year and a half after the Armistice (November 11, 1918, to May 11, 1920) for the purpose of securing additional capital for expansion. They were, therefore, typical of what one might call post-war finance. In 1925 a general study of 261 preferred stocks was prepared. This included stocks, both listed and unlisted, of well-known corporations, all issues being in excess of $1,000,000. The generalizations suggested in the remainder of this chapter are based upon the results of these studies.[8]

---

[e] The study comprised 41 preferred issues of 35 railroads and 87 preferred issues of 80 railroads. Not enough preferred issues of public utilities were then listed on the New York Stock Exchange to make a statistical study of them of value.

Lien on Assets.—It is customary to include in the conditions under which preferred stock is issued, the provision that it shall be entitled to a lien amounting to its own par value—and sometimes an additional premium—on the assets of the corporation ahead of the common stock, in case it is necessary to liquidate the business. If the preferred stock contract contains no provision specifying the manner in which holders shall be treated in case of liquidation, the assumption to be made is that the common and the preferred stockholder shall be treated alike. In that case the assets would be evenly divided among holders of the stocks. But this presumption may cause much confusion, especially if the net corporate assets exceed the aggregate par value of both the preferred and common stocks.[f] Ordinarily, however, it is deemed an advantage for the preferred stock to be fortified with the "preferred assets" clause, as the belief has become current—unfortunately a belief generally well founded—that the common stock of most corporations has little property behind it in case of the liquidation of the corporation. This preference pertains to the vast majority of preferred shares issued within the last twenty or twenty-five

---

[f] When the American Sugar Refining Company was organized in 1891 the present wide variety in detail treatment of preferred shares was neither understood by the legal fraternity nor recognized as expedient by the business executives. Consequently the conditions defining the American Sugar Refining Company's preferred stock were of the simplest kind, and no reference was made to the possible redemption of the preferred shares or their preference at the time of the liquidation of the corporation. When, later in 1914, it was suggested that the American Sugar Refining Company might be compelled to go into liquidation as a result of the government's dissolution suit, it was an open question whether the assets would be divided evenly, or the preferred stockholders would receive the par value of their shares and the remaining assets be divided among the holders of the common stock. In this instance it was of advantage to the preferred stockholders to have the assets divided evenly among all classes, as the American Sugar Refining Company owned property of a value in excess of the total par value of its shares.

---

[8] There was an early discussion of preferred stock rates and limitations in 66 Chron. 804, 835 (1898).

years and exists in about two-thirds of all the issues now outstanding.[g]

Degree of Preference.—The degree of preference of preferred shares at the time of voluntary liquidation varies according to the period of original issue and the kind of industry in which the corporation operates. Among railroads the provision that the preferred shares shall be paid in full before any distribution is made to the common shareholders, in case of liquidation, is relatively rare. In fact the provision may be said not to exist in railroad preferred shares originally issued before 1900. It is a provision that is supposed to improve the investment character of the preferred stock and as railroad preferred shares were in most instances forced on the holders of bonds, floating debt, or old stock at the time of reorganization, no special privileges or explicit safeguards were attached to them. On the other hand, most industrial and public utility preferred stocks were issued to be sold to investors and many special preferences were attached to them in order that they might appeal to investors. Preference as to assets, in case of voluntary dissolution, was one of these.[h] This general differ-

---

[g] These generalizations are based on the following: In the June, 1916, study (pre-war listed preferred stocks) it was explicitly stated in 4, out of 41 railroad preferred stocks (almost 10 per cent of the cases) that the preferred stock had a prior claim on assets. Most of these railroad preferred stocks were issued at the time of reorganization following failure and the preferred shares were forced on the old security holders. Attractive provisions were, therefore, neither necessary nor expedient. Of the 87 industrial preferred issues 56 or 64 per cent were specifically assigned priority of assets. The greater part, about 80 per cent, had been issued after 1898 and offered originally to investors. The asset-preference was, therefore, an added inducement to the prospective investor.

In the study of 100 industrial preferred stocks, issued to secure new capital in the year and a half following the Armistice, all were preferred over the common so far as the assets of the corporation were concerned.

In the 1925 study the following are shown:

	Totals	Preferred as to Assets	Per Cent
Railroads	47	11	23
Public Utility	49	19	39
Industrial	165	142	86
Totals	261	172	66

[h] In the earlier issues that give the preferred shares a specific preference over the assets there seems to be no distinction between the treatment

ence between railroad preferred stocks on the one hand and industrial and public utility preferred stocks on the other will appear at many points in this chapter.

Particularly in the industrial preferred issues of the last few years a provision has been inserted giving these shares an especially liberal value in case of voluntary dissolution. Not only can the preference stockholder claim accrued dividends before the common stockholder but he is given, quite frequently, an additional bonus. This bonus runs from 2 per cent, with a maximum frequency at 10 per cent and an extreme limit—by no means infrequent—at 125 per cent. As this bonus is usually the same as the redemption premium, the details may well be postponed to the discussion of the redemption of preferred stock.

The provision that the preferred stockholders shall receive the full par value of their stock in case of liquidation, appears at first glance to be a protection of great moment. But a corporation does not liquidate its property unless it is in severe straits, and after every possible means for continuing the business has been exhausted. Long before that time, the assets of the corporation have probably been pledged or remortgaged and securities of all forms have been placed ahead of the preferred stock; so that if, finally, the point of liquidation is reached there are no assets left for either preferred or common stockholders. But the course of disaster does not run to this length. Before the affairs of the company get to such straits that liqui-

---

at the time of failure and at the time of voluntary dissolution. After 1900 the distinction was made with increasing frequency.

In the study of 100 industrial preferred stocks, issued to secure new capital in the year and a half following the Armistice, it was found that all, without a single exception, were preferred over the common stock in case of voluntary dissolution but not necessarily in case of dissolution following failure.

In the study made in 1925 the following is the result:

	Total	Preferred Over Common in Case of Voluntary Liquidation	Per Cent
Railroads	47	13	28
Public Utility	49	20	40
Industrials	165	156	93
Totals	261	189	73

dation is imminent, the men in control have either had receivers appointed or else have themselves proposed some plan of reorganization. In either case, the preferred shareholders are compelled to make a part of the sacrifices necessary to rehabilitate the corporation. Their superior position over the holders of the common stock will rest mainly on the skill with which a committee, appointed to protect their rights, can plead their cause at the time of the general financial readjustment. Experience has shown that in the majority of both industrial and railroad reorganizations the advantages of the preferred stockholder over the common stockholder are insignificant.[9]

It has been said that the provision that the preferred stock shall be paid at par in case of liquidation, protects the preferred stockholder from a raid by financial pirates who might acquire low-paying common stock, and through control of the corporation sell the assets for less than they were worth to a new corporation organized to purchase them.[10] In such case the preferred stockholders would be defrauded. But such a case is almost impossible of occurrence, since the courts would either enjoin such a course or else sanction the appointment of a receiver who would administer the assets of the corporation under the jurisdiction of the court. On the whole, therefore, one must conclude that the inclusion of a provision protecting the preferred stockholders in case of liquidation is of more apparent than real significance.

Redemption.—Akin to the provision for the payment of the preferred stockholders in case of liquidation is that enabling the directors of the corporation to retire or redeem the preferred stock if they so desire. This is an important provision in case the preferred stock possesses voting power and there is a struggle between conflicting interests for control, or in case the preferred stock is protected by provisions which restrict the directors in some important respect.[i] The provision permitting the redemption of the preferred stock is rare among railroad preferred stock, more common among industrial enterprises, and very common among public utility companies. One may say that nearly all the preferred stocks of public utility companies issued since 1908 contain a provision for redemption and such a provision is now commonly attached to the preferred stock contract of any new company. The change is accounted for by the fact that promoters are becoming more conscious of the shifting sands on which financial structures are reared and do not want to allow prior liens to pass beyond recall. At all events, the redemption privilege gives the corporation a call on its preferred stock which lessens by just so much the influence of the preferred stockholder in its affairs.

---

[9] Subject covered in details, Book V, Chapter V.

[10] Mead, E. S., Corporation Finance, 97 (1915). The writer does not cite any instance in which such a fraud has been perpetrated on the preferred stockholders, and represents, probably, an imaginary difficulty proposed by someone unfamiliar with actual conditions. The comparatively large number of preferred stocks which are not preferred as to assets, would have given ample opportunity for such a case to occur were it at all likely to be frequent in American finance.

Practically all of the few railroad preferred stocks that are redeemable are redeemable at par, that is without the payment of a premium by the corporation.[j] The redemption of most industrial preferred shares involves the payment of some premium—from 10 to 20 per cent—although redemption premiums of as high as 25 per cent are not unusual and one or

---

[i] The former case is well illustrated by certain events preceding the formation of the Northern Securities Company. At that time the men in control of the Union Pacific Railroad and those in control of the Great Northern were striving to purchase in the open market a controlling interest in the Northern Pacific Railroad. The latter had outstanding issues of preferred and common stock. The Union Pacific group succeeded in securing a bare majority of the outstanding shares, but this majority was made up largely of the preferred. No one realized at the time that the preferred stock could be retired, but it was discovered too late that the Great Northern group, which then controlled the Northern Pacific Company's directorate, could retire the preferred stock at par, thereby assuring to themselves control of the road through the control of the common stock.[11]

[j] Wabash Railway Preferred "A" is one of the very few exceptions. This is callable by the company at $110 a share within five years of date of issue. The present Wabash Railway was incorporated in 1915, so that, as an exception to the rule, it merely shows the tendency to attach a premium to the redemption privilege of recently issued preferred stocks. Furthermore, the preferred stock of the Nickel Plate, issued in 1923 to be sold to investors, is redeemable at 110.

---

[11] Meyer, B. H., "History of the Northern Securities Case," 142 Bull. Univ. of Wisconsin (July, 1906). The particular phase of Northern Pacific preferred stock retirement is quoted by Ripley, W. Z., Railroads, Finance and Organization, 495 (1915); and Mitchell, T. W., "The Growth of the Union Pacific and Its Financial Operations," 21 Quart. Jour. Econ. 569 (1907).

two cases of a premium of 140 per cent exist—the United Cigar Stores Company. Among public utility corporations the redemption premium is usually lower than with industrials, although 20 per cent is not remarkable.[k] As a whole, the preferred stock premium is somewhat higher than the premium necessary to redeem bonds, on the presumption that the preferred stockholder owns a permanent investment for the surrender of which he must be well compensated. Quite generally the redemption premium is the same as that to which the preferred stockholder is entitled in case of liquidation, but it is sometimes higher.[l] Unless business conditions become radically different from those existing when the preferred stock was created, corporations but seldom exercise the redemption privilege. Sometimes, it is true, a boom in an industry may require an entire rearranging of the capitalization.

The automobile industry, for example, expanded very rapidly in 1915. The Willys-Overland Company wished to increase its preferred stock and to do this it found it necessary to redeem that already existing, at 110 per cent. The Consolidated Gas, Electric Light and Power Company found that its $4,000,000 of 6 per cent preferred stock, having been given a lien on the property ahead of any subsequently created mortgages, had to be retired in April, 1917, at 120 per cent in order to give the opportunity for obtaining large amounts of new capital. Sometimes, too, a struggle for control, such as that waged in 1901 for control of the Northern Pacific Railroad, may render it expedient to redeem the preferred stock.[m]

---

[k] For example, the preferred stock of the Canton Electric Company, a subsidiary of the American Gas and Electric Company, is redeemable at 120 per cent in case of liquidation.

[l] For example, the preferred stock of the Dominion Coal Company is entitled to 115 per cent in case of liquidation, but is redeemable at 125 per cent. The Fisk Rubber Company's preferred shares are redeemable at 120 per cent, but are entitled only to par if the company is forced to liquidate. Such a distinction is of frequent occurrence among recently issued preferred shares.

[m] The provision allowing redemption has gone through an evolution similar to that of the other preferences. Of the 41 New York Stock

Compulsory Redemption Clause.—The last step in giving preferred stocks priority over the common shares, from the standpoint of corporate assets, is the compulsory redemption clause contained in many current preferred stock issues. This requirement is usually called the "sinking fund," from a seeming analogy to the sinking fund provision of bond issues. Such a provision was practically unknown in preferred stock issues down to 1910; it occurred with increasing frequency during the period of the Great War and has been well-nigh universal among preferred stock issues since the armistice.[n] Besides constantly decreasing the proportion of preferred stock liability standing against the available assets, such a retirement fund provision stimulates a market for the preferred stock in so far as the company itself is forced to purchase each year some of the stock. This is especially important to the investor in small issues of preferred stock which would have, under ordinary circumstances, a limited and narrow market. The annual retirement fund of these modern preferred stocks is determined by one of three provisions—a percentage of the net earnings,[o] a percentage of the total outstanding preferred

---

Exchange listed railroad stocks examined in 1916 only 9, or less than a fifth, could be redeemed by the company; of the 87 industrials, 31 or over a third could be redeemed. Of these 31 redeemable preferred stocks 7 were redeemable at par, whereas 9 were redeemable only at 125 per cent of par. The average redemption premium was 14.+ per cent.

The later study of 1925 shows the following percentages:

	Total	Redeemable							
				Par	102	105	107½	110	115
Railroads	47	21	45%	8	1	3	1	5	3
				105	110	112½	115	120	125
Public Utility	49	23	47%	1	9	1	9	2	1
				Par	102½	105	110	112½	115
Industrial	161	108	67%	6	1	7	33	1	25
							120	125	140
							15	19	1

[n] Approximately 93 per cent of all the cases of recent preferred stocks had some form of sinking fund or retirement provision.

[o] In more than 50 per cent of the cases studied the percentage was 15 per cent. Very often there is both a lower and an upper limit, and often the percentage of net earnings that must be set aside increases as the net earnings increase. The Willys Corporation contract provided for 10 per cent—after preferred stock dividends—on earnings not in excess of $3,000,000; 5 per cent on the next $3,000,000, and 3 per cent on the balance in excess of $6,000,000.

stock[p] or a definite par value of stock.[q] By the operation of any one of these provisions the preferred stock is gradually retired, provided, of course, the corporation is successful. But, as a matter of fact, as long as the corporation is successful and able to carry out the provisions of the sinking fund, the retirement of the preferred shares carries with it no particular advantage to the investor, and may involve hardship to the corporation.

Dividend Rate.—On the surface the provisions affecting the dividend, the second class of conditions surrounding the issue of preferred stock, are of most importance. These conditions usually define: (1) what the fixed preferred stock dividend rates shall be; (2) whether or not the dividend payment shall be cumulative, that is payable later if omitted in any one year; and (3) the rights, if any, of the preferred stockholders to an increased dividend.

It is difficult to make general statements covering preferred stock dividend rates, but as a rule they vary according as the corporation is engaged in manufacturing, in public utility, or in the railroad business. Except in the group of railroad preferred stocks the fixed dividend rate is usually higher than the interest rate on bonds, even though there exist no bonds ahead of the preferred stock. This fact is based on the well-established theory that the preferred stockholders, being partners and not creditors of the enterprise, are entitled to a larger return than creditors. Their stock involves a greater risk.

---

[p] Two per cent of total preferred stock is the commonest percentage.

[q] In extreme cases this operates to retire the whole of the stock within a short time. Such an agreement on the part of the corporation would hardly constitute a prior lien on the assets in case of failure, however. In a few cases the provision is strengthened by an independent guarantee, and this guarantee could probably be enforced against the guarantor, provided the latter were solvent. Thus the Winnsboro Mills agrees to retire $500,000 of its preferred stock each year from 1922 to 1926, and $1,500,000—all that will remain—in 1927 and the execution of this part of the preferred stock contract has been indirectly guaranteed by the United States Rubber Company.

Industrials.—The preferred stock dividend rates of industrial enterprises are, as a class, highest.[r] Industrial companies are disinclined to issue bonds. Their managers seek to attract public investment capital through the issue of a preferred stock, and the investment public, conscious of the risks of industrial enterprises, demands a large share of the earnings in prosperous years to compensate for possible lapses of dividends during times of scant profits. When industrial preferred stocks were first extensively issued the promised dividend rate was placed conspicuously high—averaging more than 7 per cent.[s] Subsequently, especially after the period of industrial promotion following the depression of the middle nineties, the preferred stock dividend rates on industrials averaged somewhat less than earlier; by far the commonest rate was 7 per cent.[t] This was due, clearly, to the fact that

---

[r] The study made in 1925 of 165 industrial issues, a random selection of their outstanding issues above $1,000,000 without reference to listings, shows the following results:

	Number	Percentage
4 per cent	0	0
5 "	5	3
6 "	22	13⅓
7 "	113	68⅓
8 "	22	13⅓
Above 8 per cent	0	0

[s] Thus, the first preferred stockholders of the National Starch Manufacturing Company, organized in 1890, were entitled to 8 per cent dividends and the second preferred stockholders to 12 per cent. High rates on the preferred stocks of other industrials were:

United States Leather Company, 1893, 8 per cent.
United States Rubber, 1892, 8 per cent.
Virginia Carolina Chemical Company, 1895, 8 per cent.

To indicate how susceptible to exceptions such generalizations are, it should be noted that the preference dividend rate on the preferred stock of the Electric Storage Battery Company, incorporated in 1888, is 1 per cent. Although only a small industrial, it is a striking case.

[t] The statements of the preceding sentences are justified by the following statistics. The writer took a random selection of 125 preferred stocks of large industrial enterprises. This included all listed on the New York Stock Exchange and many listed on other local exchanges, but none of the companies had less than $5,000,000 capital and all were of more than local importance. Of the 125 cases, 15 represented promotions prior to January 1, 1897, and 110 from January 1, 1897, down to January 1, 1920. The average dividend rate of the 15 earlier preferred stocks was 8+ per cent; the point of greatest frequency was 8 per cent, and only one was less than 7 per cent. Of the 110 promoted since January 1, 1897, 82, or 77 per cent, bore the rate of 7 per cent and only one was greater than 7 per cent. The average rate was 6.7 per cent.

earlier preferred stocks were regarded with marked suspicion by investors, while on the revival of business following the financial crisis of 1893, the prevalent optimistic feeling toward business induced investors to gauge industrial risks less rigorously. As a consequence of a changed investment feeling bankers could successfully distribute industrial preferred stocks with a lower dividend rate.

Public Utilities.—Preferred stocks among public utility companies have come into existence very largely since the depression of 1903. These are for the most part of two classes—those issued by operating companies, and those issued by holding companies. Promoters of public utility operating enterprises retain for their services the entire common stock. They have therefore insisted on selling to the public a sufficient amount of securities to represent the actual net cost of the assets of the corporation. Since they cannot sell enough bonds, they therefore issue, in addition to the bonds, enough preferred stock to supply the rest of the money. As these preferred stocks are an inferior security, they carry higher rates of interest than the bonds. Because of this some investors are willing to assume the larger risk.[u] The other class of public utility preferred stocks, those of holding companies,[12] are issued to supply the capital necessary to acquire control of local operating companies. The bonds and usually the preferred stocks of these local enterprises are allowed to remain outstanding, so that, owing to the extent and variety of the claims to earnings that have precedence over them, such preferred stocks are highly speculative. At the same time, they represent a well-diversified investment, drawing their income from many and widely separated localities. As a general thing, the dividend rate of these preferred stocks is 6 or 7 per cent.[13] With a market value ordinarily less than the par value, the yield to the investor is considerably greater than the yield on the preferred stocks of local operating enterprises.

---

[u] This risk has been gauged somewhat according to the geographical location of the company. During the period just prior to the Great War, a preferred stock of a lighting company, under management known to be successful, would probably bear 7 per cent cumulative dividends, if located west of Ohio or south of Maryland; it would probably bear 6 per cent in Ohio, the Middle Atlantic States, or New England, except that preferred stocks of Massachusetts companies carried a 5 or even a 4 per cent rate. Since the Great War, the level of preferred stock dividend rates has risen here in the East, so that practically all recently created issues—even those of a few of the Massachusetts companies—have been at seven per cent. This has been due to the realization on the part of the eastern investors that the public utility developments in the newer parts of the country, on account of the greater possibility of intensive development, afford on the whole greater security than preferred stock issues of companies located in the northeast.

[12] For more detailed discussion of holding companies, see Book IV, Chapter V.

Railroads.—As the preferred stocks of railroads have, in the vast majority of cases, arisen at times of reorganization or financial readjustment, the preferred dividend rate is usually low. They were issued as expedients and forced upon holders of well nigh worthless securities—hence there was no need to make them attractive investments. The preferred stock issues of the great railway systems, reorganized in the middle nineties, had fixed dividend rates seldom exceeding 4 per cent, and the average rate of preferred stocks of railway, as a class, is much lower than the rates on public utility and industrial companies' preferred stocks.[v]

Cumulative Dividends.—The preferred stock dividend is cumulative if, when the dividends are passed, the lapsed pay-

---

[v] There are several notable exceptions: Atchison, Topeka and Santa Fé Railway 5 per cent, Chicago and Northwestern Railway 7 per cent, Chicago, Milwaukee and St. Paul Railway 7 per cent, Boston and Maine Railroad 6 per cent. High preferred stock dividend rates are also found in the case of some preferred shares of small, little known roads, as the 7 per cent rate in the Augusta Southern, for example.

The 41 listed railway preferred stocks, studied in 1916, had the following rates:

Under 4%	4%	5%	6%	7%	Over 7%
0	22	11	3	5	0

The average rate was, therefore, 4.8 per cent. The study made in 1925 of 47 railway preferred stocks, without reference to listing, showed as follows:

Under 4%	4%	5%	6%	6½%	7%	Over 7%
0 0%	12 25½%	12 25½%	12 25½%	1 2%	10 21½%	0 0%

---

[13] In a few cases of large holding companies like the Standard Gas and Electric Company of Delaware, the rate is as high as 8 per cent. In this particular case the placing of the dividend rate at so high a percentage was unfortunate.

ments must be made up before any dividends can be declared on the common stock. This cumulative feature of the preferred stock dividend rate is subject to few generalizations. During the earlier period of industrial promotion, prior to 1893, the dividend rate was more frequently non-cumulative, as the promoters of these enterprises had serious doubts of their promised success and were fully mindful that the earnings of manufacturing companies are subject to abrupt fluctuations.[w] Subsequently, in the second period of industrial promotion beginning with 1897, the dividend rate was much more often cumulative than non-cumulative, owing to a greater confidence in the economies of large-scale production.[x] Combining this conclusion covering the cumulative feature of preferred stock dividends with that already made covering the rate, one may conclude that in the early industrial promotions the preferred stock dividend was ordinarily high and non-cumulative, while in the later promotions it was ordinarily lower but cumulative.[y]

The cumulative feature was unusual with railroad preferred stocks down to 1900. Especially is this the case with railroads that underwent reorganization before 1905. As the reorganization had followed failure, due probably to the payment of too heavy capital charges, it was considered inexpedient to burden the corporation with dividend charges not fully earned in any one period. Combining this observation regarding the cumulative feature of railroad preferred stocks with that of dividends, it would seem that, as a whole, railroad preferred shares bear low rates and non-cumulative dividends.[z] In the case of public utility enterprises no generalization can be drawn, the cumulative feature being present quite as frequently as it is absent.[aa] Practically all the preferred stock issues of local gas and electric companies and all those of the large holding companies issued since 1907 are cumulative.

---

[w] Of the 15 preferred stocks of industrial companies promoted prior to 1897 (cited in note t), seven carried cumulative and eight non-cumulative dividends.

[x] Of the 110 (note t) preferred stocks of enterprises promoted after 1897, 28 were non-cumulative and 82 were cumulative.

[y] Such generalizations are at best approximations; but nevertheless their general tendency is to show the increasing confidence in industrial combinations as the movement gained impetus through successive promotions. Taking the whole group of 165 industrial preferred shares studied in 1925, 135 or 80 per cent were clearly designated as having cumulative dividends, and 17 were clearly designated as non-cumulative, while 11 were not clearly described in this particular.

Cumulative Provisions of Slight Value.—Considerable stress is usually laid by the banker and his salesmen upon the fact that the dividends on a preferred stock are cumulative. Practically, this is of little value. True, some industrial corporations that had encountered dull periods before the Great War and experienced unprecedented prosperity during 1916, 1917, and 1918, had dividends on their preferred stocks that were cumulative and were forced, theoretically at least, to settle the back dividends on the preferred shares before anything could be paid on the common stock.[bb]

---

[z] There are the usual number of exceptions to generalizations of this kind.

The Rutland Railroad has a cumulative 7 per cent preferred stock. Also a few recently reorganized railroads have preferred stock bearing non-cumulative preferred dividends up to a certain time and cumulative dividends thereafter. The Buffalo and Susquehanna Railroad Corporation has a preferred stock that is non-cumulative from the date of the reorganization, January 1, 1914, to January 1, 1915, but cumulative thereafter. One preferred stock issued in the reorganization of the Missouri Pacific Railway was non-cumulative to June 30, 1918, and cumulative thereafter. The preferred stock of the New York, Chicago and St. Louis Railroad (Nickel Plate), sold to investors in 1923, was cumulative. (See note ee, below; also Book V, Chapter VI.)

Of the 41 listed New York Stock Exchange preferred shares only one was cumulative. The same remarkable proportion would not hold true for the preferred shares of less important or more local railroads. For example, practically all the preferred shares of railroads issued either at time of reorganization or for investment since 1910 have been cumulative.

[aa] This is true because of the wide diversity of circumstances surrounding the issue of different types of public utility preferred stock. Many electric railways have been through reorganization; and, as in the case of steam railways, preferred stocks have replaced bonds and notes. The new preferred stocks were made non-cumulative to reduce all charges against the reorganized road. On the other hand, practically all electric power and light preferred stocks sold to the investors for money, bore cumulative dividends.

[bb] Through a wise conservatism the Corn Products Refining Company put back large earnings into its plants from 1906 to 1914. Meanwhile, except for one year, it had paid only 5 per cent a year on its 7 per cent cumulative preferred stock. In consequence, approximately 15 per cent remained unpaid in back dividends. Having placed its plants in excellent

not the type of stock one a

If the company earns the dividend on the preferred stock it will probably be paid; if the dividend is not earned and the directors "adjust" the books so that they may pay the dividend, lest the obligation accumulate, the preferred stockholders are not only deceived, but also have lasting injury done to their interests. Furthermore, if a considerable amount of the unpaid dividends accumulate, and the company meets with more prosperous conditions, the managers, who probably control the common stock, will often try to induce the preferred shareholders to surrender their claims on the plea of some equitable adjustment. Exactly this occurred in the readjustment of capitalization of the Interborough-Metropolitan Company in 1915. A considerable amount of unpaid dividends had accumulated on the old 5 per cent cumulative preferred stock. In order to give the common shareholders some chance to receive dividends, the preferred shareholders were asked to surrender their claim to unpaid dividends and accept a new 6 per cent non-cumulative preferred stock instead. As a bait, the directors who controlled the common stock offered to begin the payment of the new dividends as soon as the offer was accepted.

During the period of the Great War and immediately following the gas and electric utilities, both local and holding companies, fared ill. Many of them were in arrears on their preferred stocks. In the succeeding period of prosperity many of these companies made compromise offers to their preferred shareholders in order to give substantial value to the common shares. In the majority of cases these "adjustment offers" consisted of the superposition of a new "prior preferred" preferred stock issue ahead of the old preferred stock and the distribution of this new issue in lieu of money in the liquidation of the unpaid dividends.[cc]

---

condition by reason of this conservative policy, the company was able, in 1917 and 1918, to pay up the entire accumulated dividends.

[cc] Two cases among public utilities illustrate this method of settlement of accumulated preferred dividends.

The Utah Gas and Coke Company, organized in 1906, and supplying Salt Lake City, Utah, is one of the subsidiaries of the American Public Utilities Company, one of the less successful of the holding companies

There was a decision of the United States Supreme Court in connection with the preferred stock dividends of the United States Cast Iron Pipe Company which may make a considerable difference in the future issues of preferred stock. This particular preferred stock dividend is non-cumulative. The decision seemed to imply that if a corporation showed by its published statements that it had earned the dividend on the non-cumulative preferred stock but that, for reasons of business expediency, the dividends were not paid, then these past earnings would have to be paid out to the preferred stockholders before any dividends could be paid to the common stockholders. In other words, the non-cumulative preferred stockholders were entitled to all the earnings there were even though they were not paid out to them and that these earnings were a kind of continuing quasi-liability of the corporation which would have to be liquidated before anything would be paid on the preferred stock.

Importa

Recent Variations in Dividend Provisions.—The principles and cases heretofore discussed represent preferred stock dividend obligations of the simplest character. In many instances attempts have been made to introduce, for one reason or

---

organized in 1912 during the first wave of fashion for public utility holding companies. In 1918 the earnings of the Utah Gas and Coke Company, having fallen off, the company paid preferred dividends from April 1st, 1918, to April 1st, 1919, in notes. After the spring of 1919 dividends on the preferred ceased altogether. In the spring of 1924 the earnings having recovered the management effected an adjustment whereby certain common stock was cancelled, thus creating, apparently, a surplus on the basis of which a new first preferred stock known as participating preferred was created equivalent in amount to the lapsed dividends on the ordinary preferred. This was given to the stockholders in lieu of cash in settlement of their accumulated dividends.

The Southern Utilities Company was organized in 1913 as a holding company for a group of electric and ice public utility companies located in Florida and southern Georgia. It was anticipated that there would be no difficulty in earning and paying the full dividend on the 7 per cent preferred stock. During the war, however, a combination of circumstances, high costs of coal, competition among the ice companies, rising labor costs, and the like, so reduced the earnings that the dividends on the preferred stock were passed. In 1923 a plan was put into effect which provided that in lieu of the accumulated dividends, amounting to 35 per cent on each share of preferred stock, the stockholders should accept 20 per cent in new preferred stock of the original issue and 15 per cent in common stock.

another, important variations. One of the simplest is to divide the entire preferred stock into two issues, one of them, which bears a larger cumulative rate, having preference over a second preferred stock which bears a lower non-cumulative rate. This is the plan pursued in many industrial reorganizations, especially when one class of preferred stock is to be sold for money to the assenting shareholders and the other class is given for old debts. The most frequent combination is a 7 per cent cumulative first preferred stock and a 6 per cent non-cumulative second preferred. The former is sold as a high-grade investment security and the latter as a stock but little more assured of its dividend than the common stock and without the latter's speculative possibilities.[dd] The motive seems to be to create a relatively small issue of a first lien preferred stock—occupying a position analogous to bonds—upon which dividends could be almost positively assured.

Within recent years it has become the custom in the reorganization alike of industrials, railroads, and public utility corporations, to make the preferred dividend payments non-cumulative for a certain period—presumably while the enterprise is gaining stability—and cumulative thereafter. The practice has now become so general that it may be looked upon as the rule with preferred shares of large reorganizations.[ee] It is less commonly done at the time of promotions although many public utility companies have a preferred stock which is cumulative only under certain conditions of time or earnings. This is most generally true when the preferred issue goes to parties connected with the promotion. On the whole the practice is good, because it removes the temptation to pay preferred stock dividends before the success of the corporation is established.

[dd] This division of the preferred stock into two classes of the forms just described is quite common among industrial corporations. The Gulf States Steel Company, the Moline Plow Company, the American Pneumatic Service Company, the United Drug Company, and the Worthington Pump and Machinery Company, all have 7 per cent cumulative first preferred stock and 6 per cent non-cumulative second preferred stock. The reorganized Wheeling and Lake Erie Railway adopted the same form for its two preferred issues.

[ee] This feature is to be found in very many preferred stocks created during recent reorganizations. Thus the preferred stock of the Allis-Chalmers Manufacturing Company was cumulative as to 5 per cent from January 1, 1913, to January 1, 1915; 6 per cent from January 1, 1915, to January 1, 1917; and 7 per cent thereafter. The Advance Rumely Company's preferred stock was non-cumulative until January 1, 1919, and thereafter cumulative. The second preferred stock of the Worthington Pump and Machinery Corporation became cumulative only after April 1, 1919. Among railroads, the preferred issues of the Buffalo and Susquehanna Railroad Corporation and the Missouri Pacific Railroad have already been cited in another connection.

"Participating" Stock.—Giving the preferred stockholder the right to share in additional earnings is an important variation of the preferred stock contract. Recently the term "participating" preferred stock has been used. Quite often the participating feature is of little consequence to the investor, although conspicuously featured by the bankers selling the stock. Thus the bankers offering the 7 per cent preferred stock of a highly speculative chemical enterprise (Atlantic Chemical Company) called it "7 per cent Participating Preferred Stock," although it was participating only to the extent of 1 per cent provided 6 per cent was paid on a much larger issue of common stock.

Ordinarily the participating feature takes the form of an agreement that the preferred stockholder shall share, with the common stockholder, in any disbursements after the common stockholders have received an amount equal to the holders of the preferred stock.[ff] The arrangement was quite frequent among the earlier railroad preferred stocks;[gg] it was comparatively rare among the older industrials, but of more frequent occurrence among industrial stocks issued since the Great War. Sometimes the conditions are made more complicated, as when the preferred stockholders first receive a definite amount, then the common the same amount, after which the dividend on both classes increases by successive steps.[hh] It is clear that almost any variation in the dividend specifications of a preferred stock contract can be made and in practice it is possible to find an example of every conceivable variety.[ii] Unusual variations of the dividend contracts are very frequently attached to the preferred stocks of small industrial companies of Massachusetts and Connecticut in order to make their issues attractive to investors.

[ff] Such a simple form of division is illustrated among railroads by the old Chicago, Milwaukee, and St. Paul Railway. The preferred stockholders were entitled to 7 per cent non-cumulative dividends, then the common stockholders to 7 per cent, after which both issues shared alike in all subsequent dividend disbursements. An identical arrangement obtained with the preferred shares of the Chicago, St. Paul, Minnesota and Omaha, and the Minnesota, St. Paul and Sault Ste. Marie railroads. A similar principle prevailed for the small issue of prior lien and participating 4 per cent cumulative stock of the old Chicago and Alton Railroad. The 7 per cent dividend on the stock of the California Petroleum Corporation is cumulative, but after 7 per cent has been paid on the common stock the two share alike. The New York, Chicago and St. Louis Railroad has two classes of preferred stock entitled in succession to 5 per cent non-cumulative dividends. After these and 5 per cent on the common stock have been paid, all three classes share alike.

Protection from Dilution.—Although seemingly the most significant of the various qualifications of preferred stock, the conditions of dividend payment are not as important as those that should protect the preferred stock itself from future weakening through the subsequent issue of new securities having a superior or equal lien on the property.[14] The chief weakness of preferred stocks as investment securities lies in the ease

---

[gg] Of the 41 railway listed preferred stocks studied in 1916, 15, or over a third of the issues, contained provisions permitting the preferred to participate with the common in earnings.

[hh] The Chicago and Northwestern Railway preferred stock is preferred up to 7 per cent, then common stock receives 7 per cent, then preferred stock 3 per cent, then common stock 3 per cent, after which the two classes share alike. One of the most intricate forms of preferred stock dividends is that of the new Seaboard Air Line Railway. Of its $27,280,000 preferred stock, $2,280,000 is entitled to non-cumulative dividends up to the rate of 6 per cent before any dividends are declared on the common stock, and $25,000,000 is entitled to non-cumulative dividends up to the rate of 4 per cent before any dividend is declared on the common stock, and after 4 per cent shall have been declared on the common stock in any year, to additional non-cumulative dividends at the rate of 2 per cent in such year, making 6 per cent preferred dividends in all.

[ii] For illustration, in the remarkable instance of the American Brake Shoe and Foundry Company, the preferred stock was entitled to receive 7 per cent dividends, and after 7 per cent had been paid on the common stock was entitled to all thereafter.

---

[14] The importance of the protection of preferred issues from later issues of superior or equal security has been pointed out repeatedly by writers. Ripley, W. Z., Railroads, Finance and Organization, 99 (1915); Lyon, W. H., Capitalization, 70 (1912). No writer has, however, sufficiently emphasized it.

with which an unscrupulous or improvident management may place bonds, notes, and bank debts ahead of an already existing issue of preferred stock sold originally on the assumption that there were no prior liens. The preferred stockholders in a corporation are usually investors whose concern in the management is indirect. In the intent of their position they are partners; in reality they have ordinarily as little to do with the actual conduct of the enterprise as bondholders. For this reason, they are entitled to some measure of protection against the ill results of a business policy for which they are only theoretically responsible. The most vitally important protection is that which safeguards them against the dissipation of the assets of the business.

When the preferred stockholder first acquires his shares, he is mindful of the condition of the business at the time. Perhaps there are no bonds or notes ahead of his stock, as in the case of many issues of industrial preferred stocks. He relies for protection on the continued priority of the position of his security, knowing that a corporation, once established on so firm a footing as to attract investors to the purchase of its preferred shares, does not commonly become bankrupt through the routine conduct of its business. This is conspicuously true of water, gas, and electric light operating companies where well-protected preferred shares have almost the investment standing of bonds. A disaster comes, if at all, through unwise extensions. The managers, who may own only the common stock, become intoxicated with their success in a small way, and falsely assume that still greater success will follow the expansion of the business. They, being owners of the common stock, have everything to gain through expansion and nothing to lose; the preferred stockholders, being limited in the amount of their dividends, have everything to lose through the failure of the expansion and nothing to gain through its success. It is for their advantage that the business should be small, compact, and able to resist depression and possible tightness of the money market; a big business adds nothing to their security, but it does jeopardize the maintenance of their dividends.[jj]

Protection from Note Issues.—The strength of the preferred stockholder's original claim on the assets of a corporation is not in the least safeguarded in a great number of cases. The directors have authority to issue notes and create a large floating debt taking precedence over the preferred shares. The notes may bring the company to a receivership, but the preferred stockholders cannot intercede. In the final reorganization they find themselves passive spectators to the disintegration of their property and the dissipation of assets in which they originally had either a first lien or a valuable equity.[kk] But the harm to the preferred stockholders may not be as overwhelming as that resulting from a forced reorganization, and yet represent a very serious, although perhaps unnoted, emasculation of the original value of their shares. Many preferred stocks are sold with the understanding that no bonds nor notes exist ahead of them. The bond salesmen may even stress this point in an effort to make the preferred shares appear as secure as

---

[jj] Numberless instances abound. They may be chosen at random from all forms of industry. The preferred shareholders of the Chicago, Milwaukee and St. Paul Railway were adversely affected by the judgment of the directors in building the Puget Sound extension. The decision of the American Sugar Refining Company's management to extend the business into beet sugar branch of the industry, brought no good to the preferred stockholders. The surplus assets were more wisely invested elsewhere, as the bitter experiences of the company after the decline of sugar prices of 1920 too clearly showed. The policy of the Byllesby management in acquiring the Louisville, Kentucky, properties for the Standard Gas and Electric Company of Delaware operated, temporarily at least, to the disadvantage of the Standard Company's preferred shares. These illustrations might be increased indefinitely. For further discussion of the policy of expansion, see Book IV, particularly Chapter III.

[kk] Thus, the American Malting Company began business with over $2,000,000 of cash and free from debt, but in two years the directors had dissipated the money and created a floating debt of $2,800,000, all through foolish expenditures and the payment of unearned dividends. In the readjustment which necessarily resulted, the preferred stockholders were compelled to consent to the placing of a mortage of $4,000,000 on their property. (Dewing, A. S., Corporate Promotions and Reorganizations, 269 [1914].)

In recent financial history, the preferred stockholders of the Rumely Company found themselves with an almost worthless security from the accumulation of heavy debts ahead of their stock. In the reorganization, the preferred stockholders were not treated as well as the common shareholders because more was expected of them.

[illegible]
[illegible] precedence over pref

bonds to the cautious investor. It is probably true at the time of issue that the preferred stock, subject only to a small current debt, has the first claim to the property, but as soon as the corporation encounters the slightest difficulty, or a sudden demand for new money, or feels the insidious influence of a management which cannot measure size by strength, it turns to the issue of bonds or notes as the easiest method of getting money. During the spring and summer of 1918, many corporations whose credit was very high, because they had been financed only by the sale of preferred shares, turned to the issue of notes on a 7, 8, or even 9 per cent basis. In other words, the preferred shareholders, whose liberal purchase of stock had made the credit of the corporation secure, were sacrificed at the first emergency. And the possible increase of earnings due to the war expansion would not, in any way, benefit the preferred shareholders whose credit position had been ruthlessly sacrificed.

An excellent illustration of this fact is found in the experience of the preferred shareholders of the Duquesne Light Company. Originally formed in 1903, it was expanded in 1912 and 1913, so as to cover the electric services of Pittsburgh and its environs. In 1915, an issue of 7 per cent preferred stock was created and subsequently sold. At the time this stock was distributed to investors, the Duquesne Light Company had no mortgage debt and only a small floating debt. The dividends on the preferred shares, considering intercompany earnings, were being earned by the company over six times. Indeed, so attractive did the offering of the preferred shares appear, that the stock was easily and quickly sold at prices well above par. Within two years the company embarked in extensions and additions in no wise likely to benefit the preferred shares. In August, 1918, when the money market was decidedly unfavorable, it sold $10,000,000 three-year notes to a syndicate of bankers at a cost to itself of nearly 9 per cent. The company had in June, 1918, executed a mortgage of $25,000,000 on its entire property and pledged $15,000,000 of the bonds to secure the three-year notes. The preferred shareholders had over $600,000 fixed charges interposed ahead of their dividends; and, besides being pushed back in their claim to both assets and earnings, the balance available for their dividends was, proportionately, much less than it had been in 1915, when the preferred shares were issued.

Because the emasculation of the preferred stock by the creation of an unmanageable burden of floating debt can occur more secretly than the superposition of a bond issue, it is more to be feared. Nevertheless the protection of the preferred stockholder against these unbridled issues of floating debt is, unfortunately, very unusual. It is, however, absolutely necessary if preferred shares are to attain a high investment standing. It may be accomplished by specifically limiting the debt, but such limitations are rare. In fact the only case coming immediately to memory is that of the General Asphalt Company, in which the directors themselves became personally liable for a large floating debt.[ll]

In very rare cases the directors are prohibited, by the bylaws of the corporation, from incurring any floating debt at all.[mm] But such few cases are confined to holding companies which would have little occasion to create a floating debt in connection with the ordinary conduct of their business.[nn] Ordinarily, however, there is nothing in the preferred stock contract that restricts the creation of an unlimited floating debt, except that sometimes a reasonable surplus must be created before any dividends may be paid upon the common stock.[oo]

[ll] The preferred stock is protected by the provision which specifies that the directors shall be liable for debt in excess of 15 per cent of the outstanding preferred stock. As directors seldom wish to assume personal liability for their actions, the provision has almost the strength of a prohibition.

[mm] The trustees of the Central Electric Trustees of Massachusetts, a voluntary association which owned the securities of certain Massachusetts and New Hampshire electric companies, could not, by their articles of association create any floating debt or other direct liabilities ahead of the preferred stock.

[nn] It is provided in the collateral trust indenture of the parent company and in other ways, that the chief subsidiary of the Pittsburgh District Electric Company shall issue no notes, acceptances, or other obligations, unless such are immediately acquired and held by the parent company.

In the period of hectic industrial expansion during the last two years of the Great War and the year and a half following the Armistice great numbers of preferred stocks were issued in order to obtain money for expansion. During this period there was a conscious and studied effort on the part of bankers to give these issues the appearance of bond security. Advantageous as the issue of a preferred stock may be to the expanding corporation, the value of these pretended safeguards must be weighed from the point of view of the investor. Especially is this true since these recent preferred stocks have sought to obliterate the distinction between creditor and partner, seeking to retain certain of the outward characteristics that belong to stocks, while they grasp for the strength and security—the substance, as it were—that goes with bonds.[15] These efforts have proved only partially successful, for the simple reason that preferred shares, however named and however hedged in by covenants, cannot be given a priority in case of the failure of the enterprise. This is the real substance of mortgage bonds, a substance which modern reorganization procedure has somewhat weakened it is true, but a substance which gives the bond

---

[oo] There have been many such cases; a few illustrations will show the general form.

United Cigar Manufacturing Company. The corporation agreed that no dividends should be paid on the common stock until $100,000, or 2 per cent of the preferred stock, had been set aside as surplus earnings; and further that the dividend on the common stock should not exceed 6 per cent until the fund of surplus profits had reached $1,000,000.

The Studebaker Corporation. The 7 per cent preferred stock was redeemable at 125. The company obligated itself to set aside a "Special Surplus Account" each year of at least 3 per cent of the outstanding preferred stock, to be used for the redemption of the preferred stock. No dividends to be paid on the common stock until this account had reached $1,000,000, and not more than 6 per cent until the account had reached $2,500,000.

Underwood Typewriter Company. At least $100,000 to be set aside each year to retire the preferred stock at not over 125 per cent, and not over 4 per cent could be paid on the common stock until the fund amounted to $1,000,000 in money or retired preferred stock.

Chalmers Motor Company. A sinking fund of $175,000 to be accumulated to retire the preferred stock within ten years at 115 per cent or less.

---

[15] Tendencies in this direction have been noted already in the treatment of preferred stocks in general.

ordinarily the priority not only over the stocks but also over most of the notes and current obligations.[16]

This weakness in preferred shares has been, in rare cases, guarded against by making the preferred stock a direct lien on the property of the corporation, prior to any subsequently issued bonds. Thus the 6 per cent preferred stock of the Consolidated Gas, Electric Light and Power Company of Baltimore was a direct lien, subordinate to certain old mortgages, but senior to any subsequently created. The first preferred stock of the Great Southern and Florida Railway represents a direct lien on the physical property of the road, subject only to the lien of the first mortgage bonds. In other words, it is superior in position to the consolidated mortgage bonds of the road, some of which are reserved to retire the preferred stock. The preferred stocks of the Augusta, Winthrop and Gardiner Railway and the Augusta, Hallowell and Gardiner Railroad have each the same security as the closed first mortgages of these railroads. All of these restrictions, provided they can be made practically effective, tend to preserve the lien of the preferred shareholder. In that sense, therefore, they are wholesome, provided, as is usually the case, the corporation seeks to give the preferred stock an investment standing.

Such a provision would, if the lien of the preferred shares could be maintained against creditors at the time of the failure and reorganization, effectually protect the preference shareholder. But such a priority is not given to preferred shareholders. For if the preferred stocks did possess it they would cease to be stocks, and become direct obligations of the issuing corporation; this would defeat the very purposes which the directors seek in issuing stocks rather than bonds. One of the chief motives in the minds of corporation officials in issuing stocks is to increase the company's borrowing capacity at the banks. Above all else it is essential that nothing in the preferred stock contract can be interpreted as giving the new stockholders an actual lien on the corporate assets ahead of the notes and current obligations which it is proposed to negotiate in the future. All the other provisions of the preferred stock issue are innocuous "safeguards" which help the sale of the stock among public investors, without embarrassing the contemplated policy of corporate expansion on the one hand or giving real security to the stock on the other. They are the showy trappings of the advertising manager—mere trimmings.

---

[16] For status of holders of notes and current obligations in railroad reorganizations, see Book V, Chapter IV.

Ostensibly Protective Provisions.—These trimmings have, however, been used with liberal profusion in recent years. In the group of 100 preferred stocks sold in the year and a half following the Armistice—all issues sold to investors to obtain additional capital for successful companies—43 had a provision which pretended to protect the preferred shareholders by limiting the dividend to be paid on the common stock if such payments reduced the net quick assets below a specified percentage of the outstanding preferred stock.[17] But such a provision merely protects the preferred shareholders against a dissipation of the quick assets to pay common stock dividends. As long as no such dividends are paid the margin of quick assets above current liabilities can be cut into until it vanishes, and the preferred stockholders are impotent to protect themselves.

The commonest ostensible protection to the preferred shareholders is a requirement that no additional bonds [pp] or preferred

---

[pp] This form of ostensible protection to the industrial preferred shareholders is almost as old as industrial preferred shares. The preferred stock of the old National Cordage Company was protected by a provision that the company should issue no bonds. But the company guaranteed some bonds of another company secured by worthless mills. In the subsequent reorganization the claims of the holders of these bonds were superimposed upon the old preferred stock.[18]

Thus, it was stipulated at the time the United States Leather Company's preferred stock was issued that no bonds should be placed on the assets of the company, except with the consent of 80 per cent of the out-shares[qq] can be issued without the consent of the preferred shareholders. Some such provision is of almost universal occurrence in the preferred issues brought out and sold since 1915. In some cases the further issue of preferred stock alone is restricted, in some cases the further issue of underlying bonds alone and in a few cases both. It is needless at this point to mention that disaster to the corporation or the preferred shareholders seldom comes from the issue of additional bonds—and even less from the issue of additional preferred shares—but from the reckless expansion of quick liabilities either in the presence of a falling commodity market or to finance permanent extensions.

---

[17] This percentage varies. The commonest is 100 per cent. Sometimes the dividend rate on the common stock is more specifically limited, as, "Dividends on common stock not to exceed 5 per cent per annum can be paid only when net quick assets equal 75 per cent of the par value of the preferred stock outstanding, and in excess of 5 per cent per annum only when net quick assets are equal to 100 per cent of the preferred stock outstanding" (Stollwerck Chocolate Company).

[18] Dewing, A. S., The National Cordage Company, Chap. II (1913).

Management Rights.—The fourth set of conditions under which the preferred stock is issued pertains to the rights of management. Ordinarily the preferred stock has the same privilege as the common stock in the election of directors and other administration matters. This practice has been generally followed in most of the railroad and large industrial issues, although there are notable exceptions. The most frequent exception to the rule is the exemption of the preferred stockholders from any control whatever, on the theory that the preferred stockholders are merely investors in the company's

---

standing preferred stock. As it would be difficult to secure the consent of 80 per cent of the stock, unless the plan was of obvious advantage to the preferred stockholders themselves, the clause would successfully prevent any bond issue. In this particular instance, the management subsequently sought to issue bonds on certain of the company's timber-lands, but was prevented by the inertia of the preferred shareholders. Bonds could not be issued until the company was entirely reorganized, the preferred stockholders being able to inhibit every move which threatened to endanger their rights.

[qq] Of the 100 cases of preferred shares issued immediately after the Armistice over 90 per cent had a clear cut provision restricting further issues of either bonds or preferred stock or both. Some of the remainder had limiting provisions which might be construed as a limitation to further issues. Of the 165 cases—random selection of preferred issues studied in 1925—89, or 53 per cent, had one of these restricting provisions, 67 had restrictions against bonds, 59 against stocks, and 37 of the issues had restrictions against both bonds and stocks.

Such restrictions are relatively rare in both railroad and public utility issues. Of the 47 railroad preferred issues studied in 1925, 10, or 21 per cent only, had restrictions against further issues of either bonds or preferred shares or both, and of the public utility issues, only 4, or 8 per cent, had such restrictions.

securities for income in the same manner as bondholders.[rr] In such cases, however, it is usually provided that if the preferred stock dividend is not regularly paid, the preferred stockholders obtain voting rights and may even elect a majority of the board of directors.[ss]

Contrasted with this exclusion of the preferred shareholders from the management are cases in which they are endowed with greater voting privileges than the common shareholders. In such cases the preferred shareholders have from two to four votes for each share held in contrast to a single vote for each common share,[tt] although in an extreme case, that of the Na-

---

[rr] Of the 47 railroad preferred stocks studied in 1925 one only had no voting rights; of the 49 public utility preferred stocks studied one only had no voting rights. Of the 165 industrials 30 are specifically excluded from voting rights, although in the great majority of these cases the preferred stockholders acquired at least some voting privileges in the event of failure to receive dividends.

[ss] Thus, the preferred stock contract of the F. W. Woolworth Company provides that the common stock alone has voting power except after three quarterly dividends on the preferred stock have been defaulted. In the case of the International Motor Company, it is provided that the preferred stockholders may assume control of the board of directors after a single default in the preferred stock dividend. The Wisconsin Central preferred shareholders have the right to elect a majority of the directors if their dividend is not paid during two successive years. Apparently the preferred stockholders in the old Richmond and Danville attempted to abuse their protective rights, by forcing the railroad into a contract for their own benefit.[19] Somewhat elaborate protective provisions are drawn up in the charter of E. I. du Pont de Nemours and Company. "The non-voting debenture (preferred) stock shall have no voting privileges except (a) in the event the company shall fail to pay any dividend thereon and such default shall continue for a period of six months, in which event the voting and non-voting debenture stockholders shall have the sole right of voting to the exclusion of the common stockholders for the ensuing year and for each year thereafter until the company shall pay all accrued dividends on said debenture stock; and (b) in the event of the net earnings of the company in any calendar year amounting to less than 9 per cent on the amount of debenture stock issued and outstanding during such calendar year, then the non-voting debenture stockholders shall have equal voting rights with the common stockholders, which voting rights shall continue until the net earnings of the company for some future calendar year shall equal 9 per cent on the amount of debenture stock issued and outstanding in such future year." While such elaboration of detail is exceptional it indicates, nevertheless, a wholesome demand on the part of the preferred shareholders that if they are to be regarded as bondholders, in excluding them from the management, they must be given compensating protection.

[tt] The Mathieson Alkali Works allows two votes to the preferred shareholders for each share; the Kelly-Springfield, the Pure Oil, and the United States Distributing Corporation allow four votes to each preferred share.

---

[19] Daggett, Railroad Reorganization, 146 (1908).

tional Biscuit Company, the preferred shareholder has seven votes. Instances exist in the history of American finance when the preferred shareholders are given the actual control of the enterprise under any and all circumstances. Such cases, however, are rare and are usually, like the now historic case of the old Rock Island Company, in which the preferred shareholders elected a majority of the board of directors, based on tactics followed by a minority to concentrate the control of an enterprise in the hands of a few who may derive a direct income from their shares at the same time that they secure an indirect income through their indisputable control over the enterprise. Often in case of financial embarrassment the management is voluntarily turned over to a committee of the preferred shareholders by the board of directors representing the common shareholders. And often, again, after reorganizations, the preferred shareholders will be given the control until the payment of their dividends seems assured.

The reorganization plan of the Norfolk and Western Railroad contained the following provision which is fairly typical: "The holders of adjustment preferred stock are to be entitled during the period of five years after the reorganization of the new company, unless three full yearly dividends of 4 per cent per annum shall have been paid on the adjustment preferred stock before the expiration of that period, to elect two-thirds of the whole board of directors." [20]

Classified Common Stock.—Perhaps the latest outstanding movement in the direction of stock preferences is the widespread use, since 1917, of a kind of special common stock. This is usually known as Class A common stock to distinguish it from the ordinary residual common stock, known as Class B common stock.[21]

Although in England it has been customary for many years [22] to classify common stocks, the practice has been rare in this country. In fact, down to the opening of the Great War any attempt to create distinctions among the equity shares and to endow some with preferences was looked upon unfavorably by both bankers and investors. At first there were few companies with Class A and Class B stocks, but in 1918 the number increased rapidly, and new corporations have, more and more, adopted this form of capitalization.[uu] Old corporations have had their financial plans reorganized to permit the issue of common stocks of more than one class.

---

[20] Norfolk and Western Railroad Reorganization Plan, quoted 62 Chron. 642 (1896).

[21] An interesting review of certain public aspects of Class A stock is a periodical article by William Z. Ripley, "From Main Street to Wall Street," *Atlantic Monthly*, January, 1926.

Three main reasons account for the sudden coming into prominence of the classified common stock. During the period of the Great War investor-speculators came into existence who demanded a share of the bounteous profits then being reaped by those engaged in industry, but who wanted, as well, some appearance of security greater than the ordinary common shares. Where there is a demand, there will be found a means for satisfying it, and the Class A common stock suddenly made its appearance. A second reason was the desire of the management to sell, when the selling was easy, a common stock that had no special lien on property or earnings, yet allowed the management to retain full administrative control. Hence the distinction between Class A, which should receive non-cumulative dividends, if the management so decided, and Class B, which, although subordinated to Class A dividends, yet re-

---

[uu] In a study of 107 issues of classified common stocks on the market in April, 1925 [23] the following classification was found arranged according to date of issue:

Date of Issue	Number of "Class A" Corporations
1919	16
1920	13
1921	6
1922	7
1923	18
1924	20
1925 to April 1	12

The decline in 1921 and 1922 is accounted for by the industrial depression then prevailing, on account of which new incorporations were rare.

---

[22] See note a of this chapter.

[23] Dow, J. K., Class A Common Stocks, Harvard Graduate School of Business Administration (1926).

tained full voting control of the corporation. In other words, holders of Class A stock could participate in the earnings and the risks of the enterprise without acquiring any rights of administrative control.

3

A third reason, perhaps implied and only vaguely felt rather than consciously admitted, was the desire of bankers and investors alike to have something new. The principles governing the merchandising of securities are like those governing the merchandising of any other commodity. Periodically the public requires novelty. Periodically the old drama has to be set in new scenery. The World War was a great nodal point in the history of human institutions. A new kind of security must be created to announce to the investor that the old order changeth in finance as well as in other channels of human activity.

Other reasons, subordinate to these, undoubtedly turned the course of security issues toward Class A stocks. Undoubtedly, too, the United States Cast Iron Pipe decision[24] which seemed to imply that non-cumulative preferred stock dividends, earned but unpaid, would have to be paid to the preferred shareholders before anything was paid to the common stockholders, forced promoters, bankers and investors to insist on a kind of stock issue in which the rights of the shareholders were clearly stated and understood. That a stock issue should have preferences that were merely implied, not clearly understood, and that were subject to the implications of a court ruling, was repugnant to the idea of preferred stock. Class A stock, being essentially and fundamentally a common stock, was not subject to these uncertainties.

Characteristics of Classified Common Stock.—It is impossible to find any single issues having all the "special features" usually associated with Class A common stock. Still, from a study of a great variety of the recent issues, it is possible to generalize within broad limits. The Class A common stock, as well as the Class B, has no par value. Its promised dividend rate is usually 8 per cent—hardly ever less than 6 per cent. In the earlier issues, particularly those of industrial corporations, this dividend rate was non-cumulative. In the latter issues, especially those brought out since 1922, the dividend has been cumulative. It is almost invariably cumulative in the large public utility company Class A stock. There is usually a provision to allow Class A stockholders to participate in dividends, in addition to their allotted rate, after a liberal amount has been paid on the Class B stock.

---

[24] See page 61.

Almost invariably, the Class A stockholders have no vote, or vote only after a continued default in the Class A dividends. Again, the Class A stock is usually callable, and it is often protected by a rather lax set of sinking fund provisions. From all angles this new variety of stock appears as a kind of weakened preferred stock; it is another attempt to lure the investor into sacrificing real security in the hope of a larger return.

CHAPTER IV

THE GENERAL FORM OF BONDS[a]

General Definitions.—Between the two classes of corporation securities, stocks and bonds, there is a fundamental difference, in spite of many efforts to create securities which partake of the nature of both. Stocks are evidence of proprietary rights. The stockholders are under all circumstances partners and possess rights to the property and income of the corporation only after the rights of all the creditors have been satisfied. Bonds are promises to pay a certain precise sum of money and a certain definite rate of interest. The treatment of the general subject of bonds is confused by the variety of forms that have been issued, certain of which are anomalous and resist any reasonable classification.[1] Owing to this confusion no single statement can be made regarding all bonds as a class to which some exception cannot somehow and somewhere be found.[b]

---

[a] There are practically no thoroughly scientific studies of corporate bonds, from the point of view of corporation finance. For detailed studies the best work available is the atlas of White and Kemble which covers only railroad mortgage bonds. The investment aspect is fully, although in places superficially, treated in Chamberlain, L., Principles of Bond Investment (1911). Bonds, as investments, are also discussed in Lagerquist. Aside from the elaborate treatises on the law of bonds and mortgages there is a brief, compact, but dogmatic, statement of the law by Heft, L., Holders of Railroad Bonds and Notes; Their Rights and Remedies (1916). For exhaustive study of the legal phases see Jones, L. A., Treatise on the Law of Corporate Bonds and Mortgages, and Short, E. L., Law of Railway Bonds and Mortgages. The Investment Bankers Association have authorized the issue, under their auspices, of a little book by Lilly, Wm., Individual and Corporation Mortgages (1918), which gives in a very clear style, the essential legal facts of the modern corporation mortgage. This book should be referred to in case more detailed information is wanted regarding the specific clauses and covenants of an indenture than are given in the following pages.

[b] The following strictly formal definition is good: "To the word 'bond,' custom has given the prerogative of representing all subdivided interest-bearing contracts for the future payment of money that are drawn with formality, whether they are secured or unsecured, whether the interest is imperative under all conditions or not." This definition, however, is perhaps too general and it excludes all forms of "perpetual certificates of debt."

---

[1] Chamberlain, L., The Principles of the Bond Investment, 73 (1911).

There are, however, certain general characteristics of bonds to which most issues conform, and which, if absent, lead one to regard the case as an exception. There are other characteristics which may or may not be present, such as the privileges of redemption and of conversion into stock, which are not sufficiently unusual to render the issue in which they belong an exception, but which are sufficiently unusual to require special comment. It is the purpose of the present chapter to describe certain general characteristics of bonds, reserving for the next a description of the varied standard forms.

Parts of an Issue.—The bond, the document which is bought and sold by investors, is a right to participate in a certain legal contract which the corporation enters into with the holders of the bonds, or their representative, the trustee. There are, therefore, ordinarily two parts to each bond issue.[c] There is first the single elaborate document issued by the corporation, which is usually in the form of a triple agreement between the corporation, the holders of the bonds, and the representative of the bondholders. The latter is the trustee who serves as a kind of fixed intermediary between the corporation and its scattered and probably unknown bondholders. There are, secondly, the separate bonds issued under the agreement. They are distributed among investors as the individual and separate evidences of debt. Each is signed in the name of the

---

Even if one reduces the definition to merely a promise to pay a specific sum at a definite time, there would occur to the mind the perpetual annuities issued by a few corporations which could not, by any twisting of words, be made to comply with the definition. If, on the other hand, the definition of bonds is made to rest on the certainty and the regularity of the interest payments, the ordinary income bond would fall outside of the field. The perpetual certificates of indebtedness and the irredeemable income bond cannot by any subterfuge be included within a single definition.

[c] There are few exceptions. Some bonds are not issued under a mortgage, deed of trust, or indenture of any kind, but are merely long-period promissory notes of the corporation. Such issues are now very rare and belong usually to strong corporations whose credit at the time of issue was above reproach. To this class belong numerous bonds of the Boston and Maine Railroad, sold directly to local savings banks; the New York, New Haven and Hartford Convertible 3½s of 1956 and the Convertible 6s of 1948. Also some short-time bonds having a very limited market and issued by companies of poor credit, as the International Steam Pump Company's Convertible Debenture 6 per cent Notes of 1913.

corporation with the certification by the trustee that the bond is covered by the agreement. The agreement specifies in great detail the obligations of the corporation, the duties of the trustees,[d] and all the rights and privileges of the bondholders. The bonds themselves merely state that the corporation promises to pay "the bearer or registered holder" a sum of money on a certain date with interest in the meantime at a specified rate, and give a brief recapitulation of certain important promises contained in the agreement under which the bond is issued. Great care is ordinarily exercised to see that the corresponding statements in the bond and the agreement shall be the same in letter as well as import.[e] When a divergence is discovered the courts are not agreed as to which takes precedence.

In the early days of corporate mortgages and agreements these documents were very simple. In form and in substance they copied the old real estate mortgage on the presumption that the fundamental basis of corporate property was real estate and the conveyance of corporate property, in trust, for the benefit of many bondholders rested on the same legal and equitable principles as the conveyance of real estate, in trust, for the benefit of a single mortgagee. The old New York and Erie mortgage of 1847, on which the underlying issue of the Erie Railroad's bonds, due in 1947, still rests, was a very simple short mortgage. But slowly, with the development of the corporation and after many judicial interpretations of the powers and limitations of the bondholders the modern corporate mortgage has grown to be a formidable document, often running to nearly two hundred printed pages, and containing elaborate and intricate provisions to cover every conceivable emergency. The most elaborate and exhaustive mortgages are those for the great refunding issues of railroad bonds drawn within the last five years.[f]

---

[d] In theory the trustee, formerly one or two individual persons and now invariably a trust company with or without a cotrustee, holds the property in trust for the benefit of the owners of the bonds. In practice, however, the duties of the trustee are merely nominal, consisting at most of receiving from the corporation the interest on the bonds and paying it over to the holders. The trustee does nothing of his own initiative to protect his trust estate and will not act, even when requested by the bondholders, unless paid liberally for each and every move. (For brief outline of the customary duties of the trustee see Stetson, F. L., Some Legal Phases of Corporate Financing, Reorganization and Regulation, 52 [1917].) There has been much discussion, fruitful of various suggestions, directed toward increasing the active responsibility of trust companies acting as trustees under corporate mortgages. A severe criticism of present methods is to be found in a recent report of the Committee on Railroad Securities of the Investment Bankers Association. This report suggests delegating the supervisory functions of the trusteeship to a committee of the bondholders. The present methods are defended by Walker, R., "Railroad Mortgage Trusteeship," 25 Trust Companies' Magazine 541 (1917).

[e] Sometimes troublesome litigation arises when the two statements do not agree. For example, in a certain income bond issue of the Mount Vernon-Woodberry Cotton Duck Corporation, the mortgage specified that the corporation should set aside a reserve for depreciation, yet in the wording of the bonds such a reserve was omitted. Litigation resulted (Whitridge v. Mount Vernon Company). The courts have maintained that the agreement shall govern in cases of discrepancy, as this forms the fundamental basis upon which the bonds are issued. Any bondholder could and would be presumed to refer to this document to ascertain his rights. Yet sometimes—and in the Mount Vernon-Woodberry case just cited—the court decided that the wording of the bond should control, as this was the form of the contract specifically purchased by the bondholder.

Promise to Pay.—The first statement in a bond is, the promise to pay a certain sum of money. This statement, more than any other, distinguishes the bond from the share of stock and indicates clearly that the bondholder is a creditor and not a partner in the corporate enterprise. But although the statement itself is important from the legal point of view, the details such as "gold coin" and "present weight and fineness" have at the present time more apparent than real significance, as the present United States laws make all forms of currency redeemable by the government in gold. Yet if, as in Europe after the Great War, the government should some time authorize a debased or irredeemable paper currency, the power of the bondholder to demand payment in gold would assume great importance. Still, too often, the word "gold" is given undue prominence in bond issues having little security in order to obscure the absence of real elements of security by focusing attention on an empty symbol of strength.

---

[f] Certain lawyers of New York have acquired a reputation for their skill in drawing elaborate corporation mortgages. Francis Lynde Stetson, a master of the art, has written a very illuminating account entitled "Preparation of Corporate Bonds, Mortgages, Collateral Trusts and Debenture Indentures—Some Legal Phases of Corporate Financing, Reorganization and Regulation," Macmillan (1917). This was a series of lectures delivered by prominent New York lawyers, specialists in their several subjects, before audiences of practicing lawyers. It will be referred to repeatedly in these pages.

Denominations.—The face value of the promise or denomination of the bond, as it is called, was uniformly one thousand dollars in our American private finance until within the last twenty years. Before that time government bonds had been issued in small denominations to meet the demands of small savers, but corporations still clung to the tradition that a bond must be of one thousand dollars in denomination. The practice was bad, since it drove the small investor into the purchase of stocks, the par value of which was usually one hundred dollars, or into placing most if not all his capital in one bond—either course being contrary to sound investment principles. But during the last few years some of the strongest corporations, as well as many weak ones, have issued hundred-dollar bonds and in some cases even bonds of a denomination of fifty dollars. This practice is growing, so that an investor with a few hundred dollars may obtain the strength of a mortgage obligation and have an investment fund of ample diversification.

Corporations object to the issue of bonds of small denomination because of the additional initial expense and the greater clerical labor in attending to their interest payments. This slight expense is of inconsiderable importance compared with the advantage to the corporation of a wide distribution of its securities among small investors. Such distribution not only insures a wide market in case of the issue of new bonds, but also makes less probable the quick depression of the market price because of some sudden increase in the floating supply. It may be said without hesitancy, that the advantage arising from the higher selling price of the bonds, because of their small denominations, many times offsets the increased initial cost, and that, moreover, the advantage of a steadier market which comes with small holdings more than offsets the increased expense in caring for the interest payments.

Time of Payment.—Included in the promise to pay there is ordinarily the precise statement of a definite time, the maturity date of the bond. This is the characteristic which distinguishes bonds from redeemable preferred stock, although even this may be abrogated at certain times.[g] Thus the privilege of paying off an issue of bonds before they are due may be retained by a corporation,[2] and it is quite common to allow a certain latitude of time during which the corporation managers may pay the bonds if they see fit to do so. Such bonds are referred to by the limiting dates. Thus an issue of bonds which is due in thirty years but payable in ten years is referred to as 10-30 year bonds. Sometimes, although not frequently, the corporation may recognize the possibility of some contingency which may lessen the security or intrinsic value of bonds. As in such an event the bondholders might well demand the immediate payment of the bond by the corporation, the latter obligates itself in the bond to the immediate payment of the principal should that contingency arise. In public utility obligations, an early maturing franchise may introduce just such a contingency.[h]

Rate of Interest.—Following the promise to pay the principal amount at a definite time is the statement of the fixed rate of interest to be paid periodically. In rare instances this varies from time to time, but almost universally the interest

---

[g] An interesting innovation—in government, rather than corporate finance—is the "unkundbar" German war loans. This may be freely translated as loans, the general terms of the redemption and maturity of which, the government will not now declare itself on. This is a step beyond the second and third Italian loans (5s of 1916, 5s of 1917) which have no maturity but which are redeemable at the option of the government after certain specified dates.

[h] The First Lien Collateral Trust Bonds of the Continental Gas & Electric Corporation, due in 1927, contain the following provision: "The principal thereof will become due on November 1, 1924, in the event that certain changes in the franchise of one of the underlying companies, as stated in the mortgage shall not have become effective prior thereto."

---

[2] See subject of "redemption," discussed later in this chapter.

rate is fixed and unchangeable.[1] It varies in accordance with the specific security, the investment market at time of issue, and the character of the enterprise. Naturally the higher the security the lower the rate of interest, although some corporations consistently issue bonds at lower interest rates than their credit warrants, and sell them at substantial discount. The period of issue and the character of the enterprise determines the rate, as corporations are bound to follow custom. That is, if some electric companies are issuing 6 per cent first mortgage bonds, others of equivalent credit must follow the same course; if the scarcity of investment capital forces the highest grade railway bonds to a 5 per cent level, inferior kinds of issues must be brought out at a consistently higher rate, or else sold at a very heavy discount.[j] Most corporations arrange the interest rate of the bonds so that the discount at which they are sold to the public shall not exceed 10 per cent. During a considerable period before the Great War the rates on the same type of security remained remarkably constant. For railroads, 4 per cent predominated, 5 per cent was consistently used by public utilities, and 5 and 6 per cent by industrials.[k] Since 1914 there has not been the same uniformity.[l]

---

[1] In very rare cases the rate of interest is not specific. Thus the Chicago, Burlington and Quincy Railroad Trust Mortgage of July, 1873, provided that the bonds issued under it should "bear interest at the rate of seven (7) per cent per annum, payable semi-annually, both principal and interest in currency, or at the rate of six (6) per cent per annum, payable semi-annually in gold."

In the few instances in which the bonds do bear a varying rate of return the rate begins small and increases gradually to a maximum. Such bonds, issued with variable increasing interest rates, ordinarily owe their origin to some period of expansion during which the shares of some poorly paying enterprise were acquired through the issue of bonds. The interest rate on such bonds was made low at first, as the property acquired had little earning capacity; it was to be increased in accordance with the prospective increase of the acquired property's earnings. Very frequently this prospective increase was not brought about and the corporation found itself burdened with an increase of fixed charges without any offsetting advantage.

The device has been used chiefly in railroad and public utility consolidations. In the former, two rather notable, but unfortunate cases exist. The Cincinnati, Hamilton and Dayton General Mortgage Bonds of 1939, bore interest as follows:

1909-1911, no fixed rate, 4½ "at the discretion of the Board."
1911-1914, 1% fixed rate, 3½ "at the discretion of the Board."
1914-1916, 3% fixed rate, 1½ "at the discretion of the Board."
1916 to maturity, 4½% fixed rate, "at the discretion of the Board."

The Toledo, St. Louis and Western Collateral Trust Bonds of 1917, were issued to acquire a bare majority of the Chicago and Alton Railroad's shares. They bore interest at 2 per cent from 1907 to 1912, and 4 per cent from 1912 to 1917. The dividend on the Chicago and Alton Railroad's shares ceased altogether after January, 1911, and the burden of these bonds caused the receivership in October, 1914, of the Toledo, St. Louis and Western Railroad.

In the public utility field two large issues are notable.

In 1904 the Consolidated Gas Company of New York issued New York and Westchester Lighting Company's General Mortgage Bonds, of 2004, in order to pay for certain partially developed utility properties just north of New York City. They bore interest at the rate of ½ per cent interest beginning July 1, 1905, which increased gradually to 4 per cent annually from July 1, 1914, to maturity.

The Perpetual Interest-Bearing Certificates of the Public Service Corporation of New Jersey, issued to pay for the shares of five electric railways, bore interest at the rate of 2 per cent annually during 1904. The interest rate increased gradually ½ per cent each year until 1912, after which they bore 6 per cent interest perpetually. See also note (t) of this chapter.

---

[j] The privilege of calling an issue of bonds originally sold on a high interest basis when interest rates reach lower levels is a privilege more talked of than used. True in 1923, 1924 and 1925 many issues of bonds originally sold on a 7 to 9 per cent basis, with a 7 to 8 per cent coupon rate, were called in and lower coupon bearing bonds issued. But this occasion was unusual. Kingman found, in an examination of the refunding operations of 50 railroads from 1890 to 1924 only 11 clear cases in which an issue was unquestionably refunded into a new issue, for the purpose of reducing interest charges.[3] Nor is this surprising when it is remembered that the whole trend of interest rates has been upward since the middle nineties.

Date	Road	Old Rate	Amount	Decrease in Interest	New Rate
1899	Central of New Jersey	5	$ 1,500,000	$ 15,000.00	4
1899	Texas & Pacific	6	438,000	4,380.00	5
1900	Texas & Pacific	6	105,000	1,050.00	5
1901	Texas & Pacific	6	118,000	1,180.00	5
1902	Texas & Pacific	6	123,000	1,230.00	5
1903	Texas & Pacific	6	126,000	1,260.00	5
1904	Texas & Pacific	6	133,000	1,330.00	5
1905	Southern Pacific	5	21,470,000	214,700.00	4
1908	Chicago, Burlington & Quincy	5	8,334,500	83,345.00	4
1918	Chicago, Burlington & Quincy	6	2,215,000	44,300.00	4
1924	Lehigh Valley	6	15,000,000	150,000.00	5

[k] The following results were shown from a statistical study of 300 important bond issues (entirely a random selection) chosen 50 each from the railroad, public utility, and industrial fields, and classified according as they were issued from 1889 to 1900, and from 1900 to 1914. The results are as follows:

	RAILROAD				PUBLIC UTILITY				INDUSTRIAL				
	No. 4%	No. over 4%	No. under 4%	Aver.	No. 5%	No. over 5%	No. under 5%	Aver.	No. 5%	No. 6%	No. under 5%	No. over 6%	Aver.
1889–1900	26	17	7	4.32%	34	6	10	4.94%	22	25	3	0	5.47%
1900–1914	35	11	4	4.25%	31	5	12	4.92%	18	27	4	1	5.53%
Averages				4.28%				4.93%					5.50%

[l] Friedlander found that from 1914 to 1924 the average rate of yield of 853 industrial bonds was 7.02 per cent and for 278 separate industrial

---

[3] Kingman, John C., A Survey of the Recent Refunding Operations of Fifty American Railroads, Harvard Graduate School of Business Administration (1925).

Place of Payment.—In connection with the promise to pay, the bond and the deed of trust—if such exist—state also the place at which the principal and interest are payable, usually a trust company or bank in a large city. Although it has become a universal practice, because a convenience to all concerned, this specific mention of a place of payment is not required by law.[m]

The Security—Mortgage Bond and Debenture.—After the promise to pay, the bond usually states in abbreviated form the kind of security upon which the bondholder may rely for the enforcement of the corporation's promises. This is either a mortgage on certain property or a specific agreement reinforcing the mere promise to pay. In the former case the bond is called a mortgage bond and in the latter a debenture. In case the bonds are not protected by a specific mortgage a promise is usually made by the corporation to protect the issue in case its property is subsequently mortgaged.

Open and Closed Mortgage Bonds.—The question of the protection of the bondholder from abuses of subsequently created mortgages suggests at once the allied question of "open" or "closed" bond issues. A "closed" issue is one in which no more bonds can be issued under the mortgage deed of trust or agreement. The transaction is finished. If specific property is pledged, there can be no more bonds issued having the same hold on it; although other and succeeding mortgages may be created without limit, the lien of all these will occupy a subordinate position. An "open" issue, on the other hand, permits the further issue of bonds with the same lien as those already

---

note issues was 7.06 per cent. Six per cent bonds were issued at a considerable discount and 7 per cent bonds at par.[4]

[m] Very few issues can be found in which some place of payment is not mentioned. Exceptions, however, exist. For example, no place was mentioned in the New York, New Haven and Hartford 3½ per cent issue of 1912. In such rare cases it may be assumed that the principal office of the company or its principal agency is the place of payment.

---

[4] Friedlander, A. J., A Statistical Study of Industrial Bonds Issued Between January 1, 1914 and January 1, 1924, Harvard Graduate School of Business Administration (1925).

outstanding, and in the case of subsequent failure, the holders of all these issues stand on the same footing.

Some confusion has arisen in regard to the use of the term "open-end" mortgage or bond issue. This confusion has arisen from the difficulty of deciding the degree of "openness" that shall constitute an "open-end," for there are many instances in which the limit on the amount of the subsequently issued bonds is so large as to constitute, to all practical purposes, no restriction whatsoever. To avoid confusion we will define the terms with some degree of precision. A closed mortgage or bond issue is one in which all the bonds that can be issued legally under the indenture or agreement are issued and outstanding. An open mortgage or bond issue is one in which the indenture or agreement permits the issue of bonds in addition to those outstanding. Furthermore, open mortgages are, in outward form, of two kinds. In one the upper limit, or authorized issue, is definitely stated, and when this limit has been reached the issue becomes, automatically, closed. In the other class there is no specific upper limit to the total amount of issue, except that in some cases the amount of the outstanding bonds must not exceed a certain ratio to the common stock. This latter provision, however, is of little practical significance as the management can increase indefinitely the amount of common stock.

Restriction on "Open-End" Bonds.—As the motive of self-interest usually impels a corporation to issue as many bonds as possible, it is customary and necessary that the conditions and restrictions under which additional bonds, under either form of open-end bond issue, should be defined with care and precision in the original indenture. This is necessary in order to protect the corporation in the exercise of its apparent rights under the terms of the original issue quite as much as to protect the bondholders in preventing the dilution of the lien of their security.[5] For unless the conditions defining the bonds to be issued subsequently are stated precisely, the attorneys for the trustee may advise that, in case of uncertainty, the trustee should refuse to certify further bonds.[n]

---

[5] Stetson, F. L., Some Legal Phases of Corporate Financing, Reorganization and Regulation, 33 (1917).

These restrictions usually refer both to the property securing the bonds and the income available for the bond interest. The former set of provisions protects the bondholders from undue emasculation of the principal of their lien, on the theory that the actual cost of property is the basis of security. The latter set of provisions protects the bondholder from the lessening of earnings available for bond interest, on the theory that earning power is the basis of security. In truth, therefore, the bondholder has both forms of protection.

In order to protect the principal of the lien the corporation agrees not to issue further bonds except for refunding certain specific underlying issues and for the payment of new construction up to a certain percentage of its cost or for other equally specific purposes. These specific purposes for which the subsequent bonds may be issued should be defined with great care. Often the corporation retains for itself unwarranted privileges in the freedom of subsequent issues. Thus the great "open-end" mortgage of the Dayton Power and Light Company permits the issue of bonds to pay for the stocks—not bonds or property—of street car lines without defining the equity the stocks must have.

---

[n] There was a case of a small Maine public utility which had the right to issue bonds up to $150,000 par value—$121,000 having been already issued and sold. The remaining $19,000 could be issued, provided certain clearly defined conditions were complied with. Among these was one relating to net earnings after depreciation.

Two years or more after the original issue, the capital improvements and the net earnings having increased in the meantime, the directors sold the remaining $19,000 to bankers on the assumption, supported by the corporation's accounts, that all the conditions of the indenture permitting the further issue of bonds could be complied with. But when it came time to deliver the bonds to the bankers the trustee refused certification because the amount of depreciation was not clearly defined, and the trustee's attorney advised the trustee not to assume the responsibility of acquiescing to the corporation's treatment of depreciation. After a prolonged controversy the trustee certified to the bonds but insisted on holding in trust for an indefinite period the proceeds of the sale of the bonds received from the bankers, and the corporation was forced to contribute the discount from its own treasury.

Among public utility corporations the issue of new bonds is usually limited to 70 or 80 per cent of the actual cost of the improvements to be covered by the bonds. In this way the stockholders are forced to supply from 20 to 30 per cent of the money required for new construction. Established railroads usually retain the privilege of issuing additional bonds up to the full cost of the new construction, while among industrials, where open-end mortgages are rare, the corporation is sometimes limited to 50 per cent of the cost of new property or new construction.

The restricting provisions governing income are based, at best, on theories of accounting and should be very clear. They usually stipulate that no new bonds can be issued unless the previous net earnings[o] are well over the interest both on the old bonds and those it is proposed to issue. In public utility open mortgages it is ordinarily required that the earnings shall be from one and one-half to three times the bond interest. The commonest proportion is twice the interest charges. If the issue is itself of apparently doubtful character, like a debenture, the restriction is stronger; in such a case three times interest charges is common. A proportion as high as three to one is somewhat unusual among mortgage bond issues, but it affords liberal protection to the holders of debentures.[p]

---

[o] In rare cases the gross earnings are also defined. Thus in the open-end mortgage of the Mobile Gas Company it is required for further issue of bonds, among other things, that the gross earnings must be four and a half times the interest on both the bonds already issued and those proposed to be issued.

[p] The contract protecting the American Gas and Electric 6 per cent Debentures of 2014 (American Series) requires that no new debenture bonds shall be issued "unless the net income of American Gas and Electric Company (after deducting expenses and interest on outstanding secured indebtedness of the Company maturing not less than five years from the date of this issue) as determined by a certified public accountant, to be approved by the Trustee, for twelve months within the fourteen calendar months immediately preceding any application is at least three times the interest charges for a like period on the Debenture Bonds outstanding, those applied for, and interest upon any indebtedness of the Company other than the secured indebtedness above mentioned."

In addition to the main restriction to the cost of property and the net available income, there are sometimes, but not frequently, inserted in open-end mortgages other special provisions. For example, especially in industrial bond issues, it is provided that the net quick assets shall equal or

It has been stated already that open-end mortgages are to be divided, conveniently, into two classes according to whether there is or is not a definitely defined upper limit. Frequently, even in great open-end issues the amount is theoretically limited to two or three times the outstanding issue of common stock.[q] This, however, affords far less protection to the present and future bondholder than some statutory restriction subject to the interpretation and restraint of an outside body. In actual practice, the restrictions to the unlimited issue of the Chicago Railways Company's First Mortgage 5s—protected by special statute and the necessity of certification by the municipality itself—protects the investor far more than mere limitation of the amount of issue. Theoretically the issue is unlimited, practically it is limited by safeguards much stronger than the mere

---

exceed the outstanding bonds. In rare cases a city may reserve the authority of issue for the bonds of its public utilities, or the investor may require the city's certification for the issue of further bonds under an open mortgage. Thus, additional first mortgage bonds of the Chicago Railways Company can be issued only after the comptroller of the city has certified that the improvement made out of the proceeds of the bond is in accord with the ordinance under which the company's charter was granted. This ordinance accepted by the voters April 2, 1907, gives to the company a monopoly, subject to city purchase, of the street railway lines and provides that the Board of Supervising Engineers of the city must approve of extensions which may be paid for by the sale of the trust mortgage bonds. But for this restriction, however, the amount that may be issued is unlimited. All of the bonds issued retain a first lien on the entire property and "as against the city and any licensee of the city and any and all other persons having or claiming to have any interest or benefit under this ordinance, the lien securing said bonds and obligations shall at all times be deemed and recognized to be a first lien upon the entire street railway system hereby authorized, including all rights granted to the company by this ordinance."

[q] The mortgage of the Boston and Maine Railroad provides that "the total issue at any time outstanding including bonds at that time reserved for refunding underlying bonds, is limited to a principal amount which when added to the aggregate principal amount of all the pre-existing bonds secured hereby and then outstanding, shall not exceed twice the aggregate par value of the capital stock of the railroad at that time paid and outstanding." The mortgages of the Chicago and Northwestern Railway and the Chicago, Burlington and Quincy Railroad both state, "The total amount of bonds which may at any time be outstanding under this mortgage is limited to an amount which together with all outstanding prior debt of the company, after deducting therefrom the amount of all bonds reserved to refund prior debt at or before maturity, shall never exceed three times the par value of the then outstanding capital stock of the company." The total amount of bonds which may be outstanding under the mortgage of the New York, Chicago and St. Louis Railroad is also three times the capital stock outstanding.

statement of a theoretical limit never likely to be reached in practice.

Wide Use of "Open-End" Bond.—The issue of open mortgages was comparatively unknown until about 1901, but since that time it has become very common in all fields of corporate financing except that of industrials.[r] In practice it is well-nigh universal among the issues of the larger public utility corporations. To ascertain the extent of the contemporary use of closed and open-end bond issues a survey was undertaken of 480 separate bond issues offered to the public between 1920 and 1924.[6] The results, as shown in the following table, are self-explanatory:

Table Showing Open and Closed Issues of Bonds

(Random Selection of 480 Issues Brought Out 1920-1924.)

	Railroad	Public Utility	Industrial	All
Closed Issues......	10	15	273	298
Open Issues........	21	87	74	182
Upper limit authorized.........	14	33	70	
No definite money authorization . .	7	54	4	
Totals.......	31	102	347	480

From this we may conclude that approximately two-thirds of the railway issues, about five-sixths of the public utility and about a fifth of the industrial issues now being brought out are based on open mortgages or agreements in one form or another.

Possibilities of Danger.—The wide, perhaps unlicensed, use of open-end bond issues, especially those with very large numerical limitations—or none at all—has possibilities of serious danger to the investor and the general strength of our financial structure. The wholesome restriction is capable of abuse. Excessive costs of machinery, land and franchise rights may inflate the plant account beyond reason, excessive maintenance and depreciation charges may reduce it—all in accordance with some ulterior purpose of the management.

---

[r] It is not unknown even in the field of industrials. On January 2, 1914, Swift and Company authorized $10,000,000 thirty-year 5 per cent general mortgage bonds, the total amount that could be subsequently issued being absolutely unlimited. The deed of trust permits the issue of "other amounts subsequent thereto, as the business of the company may require in the judgment and discretion of the Board of Directors."

[6] Dayton, W. L., Open End Mortgages, Harvard Graduate School of Business Administration (1925).

The abuses are conspicuously true as regards the cost of property restrictions in public utility issues. The provision restricting the issues of new bonds to 70 or 80 per cent is susceptible to manipulation by an unscrupulous management. By making heavy charges for engineering services, heavy intermediate profits on materials furnished, and fictitious valuations for new real estate—either through the directors and their associates or through subsidiary or allied corporations—it is possible to so inflate the construction costs that the 70 or 80 per cent which the terms of the open mortgage may cover will equal the entire actual cost. The only protection for the bondholder in such cases is through a valuation conducted by the trustee of the mortgage acting as the bondholder's agent, or by a disinterested body, such as the Public Service Commission of the State. Fortunately cost of property means little regarding the fundamental security of public utility bond issues, so that framing the capital accounts to suit the exigencies of bond issues does little real harm to the security of the investor.

As investors rely mostly on net earning statements in their purchase of public utility securities, the restrictions on further issue, based on earning power, are of vital importance. The manipulation of the income accounts is the most serious mistake of corporation managers desiring to merit the confidence of investors. Net earnings can be manipulated in the year just before a contemplated issue of bonds by curtailing maintenance or by making unusually large capital expenditures. This is sometimes specifically guarded against by detailed provisions in the mortgage. Such a wholesome, but unusual, provision is that contained in the mortgage covering the Refunding and Extension Mortgage 6s, 1957, of the Birmingham Railway, Light and Power Company which requires that: "ten per cent of the gross earnings shall have been expended for maintenance in the preceding twelve months," before computing the net earnings of the company. After all has been said, however, the open and clear-cut methods of accounting are, in the end, the investor's soundest protection.

Advantages and Disadvantages—Open and Closed Bonds.—The advantages and disadvantages of open and closed issues of bonds are not easily compared. In either case, much more depends on the fundamental honesty of corporate managers than the strict language of legal contracts seems to imply. If the management wishes to deceive the bondholders, the fact that the bond issue is closed may not serve as an obstacle.[7] On the other hand, if the management intends to safeguard the interests of its bondholders, liberal provisions for issuing new bonds are not likely to be abused. Generally speaking, closed issues of bonds are better from the point of view of investment, but less desirable from the point of view of the corporation. An investor in a closed series knows exactly where he stands if the corporation fails. On the other hand, the corporation may get into trouble because it cannot obtain money for improvements when its property is fully covered by a previously existing mortgage, and in that case the bondholder is adversely affected through the general disaster of the corporation. In the majority of cases the provisions of open mortgages are not abused by corporation managers and the existence of an easy and simple method of financing extensions operates to the advantage of all security holders.

One matter which corporation managers should observe with care concerns the conditions of marketing the successive instalments of bonds. It is a distinct advantage of closed mortgage bonds that the market for them requires less artificial protection. All security prices are determined in the end by supply and demand. If a corporation suddenly, and without proper safeguards for maintaining a market for the old bonds, issues a block of new bonds under an open mortgage, the supply will be temporarily increased. As a result the market price of the old bonds, as well as the new will fall. Allied to this disadvantage, is the fact that the early buyer of an open-end issue of bonds does not know, nor can he be safeguarded against, the subsequent sale of a later block of bonds on more advantageous terms. In the spring of 1914, investors bought the first instalment of an open issue of the Montana Power Company's First Mortgage Bonds for 94. Four years later in the spring of 1918, when the company was in a far stronger position, and with a greater margin of earnings, another instalment was offered at 89.

---

[7] Further discussions, Book IV, particularly Chapters IV and VII.

Maturity of Bonds.—Bonds, unlike shares of stock, mature at a definite time.[s] The length of their life varies greatly according to the credit market at the time of issue, the prejudices of investors, and type of security behind the bonds. A classification of periods is little more than approximate, yet such phrases as "short-term" and "long-term" have crept into the vocabulary of finance. Without holding too rigidly to the limits given, one may say that obligations which mature in less than five years are of the nature of notes, meaning by note merely a short-time bond in which the safeguards are much more the temporary credit of the corporation than its permanent assets. Bonds which run from five to fifteen years may be conveniently designated as short-term, while those that run from fifteen to forty years may be called medium-term bonds. Those which will not mature for more than forty years should be called long-term bonds and belong to a special class because of the difficulty of projecting conceptions of property value into the distant future.

Each general class is distinct, whether or not the limits just mentioned would be generally acceptable. Notes and short-period obligations are sold mostly to banks and business men who are in a position to turn their resources quickly. They are often of the form of debenture bonds without specific security, or with inferior security; or they may be secured by the pledge of other bonds which the corporation proposes to market before the short-term obligation matures. Medium- and long-term bonds, on the other hand, are sold to investors, savings banks, and insurance companies, all desiring permanence of investment and continuing strength of security rather than early convertibility into money. Because their purchasers desire, above all else, unqualified security, they are ordinarily protected by a mortgage on permanent, tangible property and long-term "rights" and franchises.

---

[s] Unless we refer to perpetual bonds, or a few cases of farcical maturities. Of the latter perhaps the most suggestive are two issues of income debenture bonds of the Green Bay and Western Railroad. Not only is the interest paid only "if earned," but the bonds mature only if the road is sold or reorganized!

Long-term Bonds.—In the history of American finance long-term bonds were comparatively unknown until the period of railroad reorganization following the panic of 1893. True, bonds of fifty years' maturity were sometimes issued in the period before the Civil War, but hundred-year bonds were practically unheard of. In fact, the number of hundred-year bonds issued before 1880 can be counted on the fingers. When issued, they were usually of inferior value, such as second or third mortgage bonds on weak railroads and their issue was regarded as a kind of preferred stock possessing the name of a bond. With the improvement of credit of the issuing roads some of ~~these old~~ closed hundred-year bonds are now numbered among the strongest securities available to the American investor. Thus, in 1880, the old Louisville and Nashville Railroad issued a closed second mortgage bond on its St. Louis extension, due in 1980. The security at the time was meager and the interest rate was only 3 per cent. Yet because of the improvement of the road's general credit, the increasing importance of the St. Louis line, the large expenditures subsequently made, these bonds are now among the choicest available. It might be said in this connection that the prospective investor may often obtain very high-grade bonds by searching out some of these old long-term, divisional bonds, long since forgotten.

As a class long-term bonds may be said to have arisen as a result of the refunding of the older short- and medium-term bonds of defaulting railroads into long-period bonds following the numerous railroad reorganizations of the decade from 1890 to 1900.[8] The practice having been established among the larger trunk line roads, it was adopted by others. Over two-thirds of the large railway systems of the country have issued, at one time or another, bonds of a hundred years or more. This practice followed in the wake of the realization that the debt of American railroads would never be paid off and that the lien placed upon the roads was, in a sense, quite as permanent as the stock. The extreme limit of longevity of a bond was presumed to have been reached when the West Shore Railroad placed on its lines a mortgage due in the year 2361. This is exceeded, however, by the farcical date of maturity of the Elmira and Williamsport 5 per cent Income Bond of 2862. Bonds extending over fifty years are not issued by public utility corporations, except by the large metropolitan traction and lighting companies, the property of which approaches, at least in theory, the permanence of that of steam railroads.[9] If exceptions to this principle exist, they are the issues of very strong, widely known corporations with high credit.[10] Even then the long-term bonds of public utility companies are to be looked upon much more as high-grade, non-voting stocks than as real bonds, having substantial physical property as their security.[t] Long-term bonds are practically unknown among

---

[t] For example, the American Gas and Electric 6s Debentures of 2014, issued in July, 1914. This corporation and its associate, the American Power and Light Company, are alone among the public utility holding companies in having hundred-year bonds. This issue of debentures is of the

---

[8] Discussed in detail in Daggett, S., Railroad Reorganization, 365 (1908). Daggett points out that the lengthening of the term of railroad bonds during the reorganization period was regarded by investors as an advantage on the presumption that interest rates were falling.

[9] For example, see the Brooklyn Rapid Transit, First and Refunding 4s, 2002; and Manhattan Railway Consolidated 4s, 1990. Consolidated Gas Co. (N. Y. and Westchester Lighting General Mortgage 4s, 2004.)

[10] An extreme case is Commercial Cable Company's First Mortgage Bonds, due 2397.

manufacturing companies, owing to the wise conviction on the part of investors that all the values of an industrial enterprise are fluctuating and uncertain.[u]

Bonds of Extra Long Terms.—Among long-term bonds those having a maturity date exceeding eighty years may be looked upon as a special class, having, in many respects, the character of irredeemable or perpetual debt. Accordingly an analysis was undertaken of all such bonds issued since the Civil War which had not been, by 1925, extinguished by failure, reorganization or refunding into other issues. Altogether there were 121 such issues, of which 88 were the bonds of railroad corporations, and only three the bonds of industrials. Of these long-period bonds one hundred years was the length of life of greatest frequency of occurrence—about two-thirds of the entire group. It is also interesting to note that over half of all these bonds having maturity exceeding eighty years were issued in the period of railroad reorganization following the business depression of 1893.[v]

---

nature of a first preferred stock. The company has very strong credit—perhaps, the strongest of the Electric Bond and Share Company's operating subsidiaries. At the time of issue the company had a surplus available for interest over twelve times the requirements, its common stock was selling for 186 per cent and its 6 per cent preferred stock at 96 per cent of par in the market. This issue was a mistake, as the long period of the maturity prejudiced the investors, who would have been willing to pay as much or more for a preferred stock with far smaller concessions from the company. It should be noted, too, in this connection that the Public Service Corporation of New Jersey is one of the few corporations in the United States that have issued perpetual certificates of debt. They are, in this case, a kind of collateral preferred stock secured by a deposit with the Fidelity Trust Company of the stocks of five electric railways. Note (i), page 84.

[u] Bethlehem Steel Company Purchase Money 6s, issued in 1898, and due in 1998, are unusual among industrial bonds for their long life. But these bonds owe their unusual maturity to the fact that a small group of financiers wanted to secure the control of the old Bethlehem Iron Company the stock of which was then paying 6 per cent. These bonds were offered in exchange. They were regarded as little different from a stock. In the study, presently to be described, of bonds having a maturity at time of issue of eighty or more years, only three cases of such bonds of industrial companies were found. Besides the Bethlehem case just mentioned the other two were unimportant.

[v] These conclusions are drawn from a study by Pollard.[11] The summary tables may be of interest. As there were but three industrial bonds found

---

[11] Pollard, J. G., Jr., Statistical Study of Perpetual Bonds, Harvard Graduate School of Business Administration (1925).

"Irredeemable Annuities."—The extreme limit of maturity is reached in the few cases in which American private corpora-

---

that could be included with the group, they are omitted from the following table.

LENGTH OF TERMS

	Railroad	Public Utilities	Totals	Percentage
Perpetual bonds	4	1	5	4
Maturity greater than 101 years	7	1	8	7
Maturity from 98 including 101 years—mostly 100 years	68	23	91	77
From 80 to 98 years	9	5	14	12
Totals	88	30	118	100

TIME OF ISSUE

	RAILROADS		PUBLIC UTILITIES		TOTALS	
	Number of Issues	Amount in Millions of Dollars Par Value	Number of Issues	Amount in Millions of Dollars Par Value	Number of Issues	% of Whole
1865 to 1879	3	$ 16	0		3	3
1880 to 1889	11	229	0		11	9
1890 to 1899	56	2,044	9	$80	65	55
1900 to 1909	12	232	5	26	17	14
1910 to 1919	3	262	5	34	8	7
1920 to 1925	3	288	11	60	14	12
Totals	88		30		118	

The average bond issue of the railroads was 23 millions, that of the public utilities 7 millions approximately.

INTEREST RATES

	3	3½	4	4½	5	5½	6
Railroads	3	10	46	9	20	1	7
Public Utilities	1	0	7	1	9	0	13

Kingman[12] in his study of the refunding operations of 50 American railroads found the following interesting dispersion of maturities:

TABLE OF MATURITIES

Period of Issue	NUMBER OF ISSUES HAVING A TERM OF: (YEARS)						
	10–20	20–30	30–40	40–50	50–75	75–100	Over 100
1850–1854	.....	.....	.....	.....	1**	1**	.....
1855–1859	.....	.....	.....	.....	.....	.....	.....
1860–1864	.....	.....	7	.....	1	.....	.....
1865–1869	.....	3	21	4	5	5	.....
1870–1874	1	14	22	20	4	.....	.....
1875–1879	.....	12	39	23	7	3	.....
1880–1884	.....	11	22	44	37	2	.....
1885–1889	4	10	14	34	59	1	18
1890–1894	3	8	14	26	51	11	15
1895–1899	.....	7	13	12	70	5	17
1900–1904	9	19	18	20	47	1	8
1905–1909	4	24	15	22	40	.....	4
1910–1914	7	25	19	4	22	2	3
1915–1919	14*	8	10	9	8	2	1
1920–1924	37*	7	6	6	8	5	4

* Largely accounted for by short loans using blanket mortgages as collateral, or by loans advanced by the Government, specifically: 5 in 1915-1919; 22 in 1920-1924.
** Extended.

---

[12] *Op. cit.*, page 85.

tions have issued perpetual certificates of debt, or "irredeemable annuities," as they are sometimes called. These are bonds, in point of view of security and the obligation of the corporation to meet the regular interest payments, but they have no date of maturity. However described, they are an anomaly—a debt that is never due—and our practical, perhaps simple, American consciousness has never adopted the idea. In the comparatively few cases where they have been issued they have commanded a market price but little above a preferred stock of equivalent income yield, although the strength of the obligation and the security behind it has been conspicuously greater. For illustration, the most notable issues of this kind in our contemporary American finance are the Lehigh Valley Railroad's Consolidated 4½ and 6 per cent Annuities. Considering the yield of these two issues, as evidenced by their market price, during a period of the fifteen years from 1910 to 1925, one may hazard the presumption that a small issue of preferred stock of the same size—about $12,000,000—could have been issued and sold by the Lehigh Valley Railroad at a rate no greater than the yield on these perpetual bonds. In fact, considering the tax laws of the Commonwealth of Pennsylvania it is probable that at any time since 1905 the preferred stock would have been bought by investors at a lower yield than the bonds.

All long-term bonds ostensibly secured by property are a confession of irredeemable debt. As such they are wrong in principle. No property, not even property rights, can unquestionably retain its economic value beyond half a century, or be projected into an unknown future far beyond the limits of any human life. "Little of all we value here, wakes on the morn of its hundredth year." In reality, long-term corporation bonds are merely unsecured promises of a corporation, conceptually immortal, yet subject to all the limitations of economic, political, and social conditions.

Redemption.—Most bonds contain a provision which enables the company to pay them before maturity. This privilege may prove of importance to the company, if it becomes necessary at a future time to create a large new issue to be secured by the same property as that covered by the outstanding issue. In addition, many bonds, mortgages, or debentures, contain the provision that the issuing corporation shall redeem a proportion of the outstanding issue each year. This is called the sinking fund. It increases the apparent security from the point of view of the investor, and assures him at all times of a market for his bonds; it also facilitates the ultimate redemption of the issue at its maturity. As the sinking fund is a form of the reserve to be deducted from the net earnings of the corporation, it will be described in connection with a more comprehensive treatment of the latter subject.[13]

The conditions under which bonds may be called for one purpose or another are, however, an important part of the contract under which they are issued. Almost universally, bonds are sold to the bankers at a discount from their par value, so that they may be reoffered to the investing public at par or below. Under these circumstances the corporation would not care to buy them back from the public unless at a discount —certainly not at a premium. Yet conditions often arise which make it highly desirable for the company to buy back its own bonds.[w] Sometimes the company agrees to sell its property free from debt, sometimes a change of state law may necessitate the refunding of old bonds. It has even been found ex-

---

[w] So desirable is this privilege that corporations are sometimes willing to pay heavily for the insertion of a redemption price in the bond contract after the bond has been issued. Thus the First Mortgage Bonds of the Houston, East and West Texas Railway, a proprietary company of the Southern Pacific, were not callable at any price. To those of the bondholders who would allow the bonds to be stamped with an agreement permitting the Railway Company "to have the right to redeem this bond at 105 per cent of the par value" the Southern Pacific Company guaranteed unconditionally the punctual payment of the principal and interest of the bond. In the spring of 1917 the Philadelphia Company offered to establish a sinking fund of 2 per cent for its First Mortgage and Consolidated Mortgage Bonds, provided the holders permitted the insertion of a call price.

---

[13] Book III, Chapter VIII.

pedient to call bonds to prevent the bondholders from receiving excessive profits.[x] Usually bonds are called when it is necessary to create a larger bond issue than was originally contemplated and bankers insist that the underlying bonds be bought in by the company and the old mortgage canceled. Ordinarily the bankers will pay enough more for new bonds which are secured by an absolute first mortgage on the entire property, to make it thoroughly worth while for the company to redeem its old bonds.

A concrete instance will illustrate this general principle. A small gas light plant serving the center of a city of 20,000 inhabitants was built at a cost of $238,000. On this property the operating company executed a mortgage and issued $200,000 first mortgage bonds which were sold to the bankers at 84, and by them to the public at 91½. The bonds were callable at 103. Three years later, the city having grown and the gas company having prospered, the stock of the company was bought by the electric light interests of the city. The purchasers formed a new company which acquired title to the physical property of both the gas and electric light systems, together with an electric distributing system for three smaller adjoining towns. The only lien consisted of the $200,000 bonds on the gas property alone. The total assets of the new company had a value of approximately $2,500,000. The consolidated company wished to bond the entire property for $2,000,000. Two possibilities were open: either to issue outright $1,800,000 first and refunding mortgage bonds, subject to the underlying gas lien; or else to call the latter bonds and issue new first mortgage bonds. Conversations with bankers led to the following results: first alternative—$1,800,000 first and refunding bonds, for which the bankers would pay 80, or

---

[x] The Union Pacific road had certain so-called Oregon Short Line Participating 4 per cent Bonds, which were entitled to a regular interest payment of 4 per cent and in addition a proportion of the income received from the Northern Security Stock. The latter was held back owing to litigation. Before it was made available, however, to the holders of the participating bonds, the latter were called at 102½.

litigation = trouble at law

4,000 could be mo
by calling the old bon

$1,440,000 in money; second alternative—$2,000,000 first mortgage bonds, for which the bankers would pay 85, or $1,700,000 in money. But from this amount $206,000, at the outside, would have to be deducted for calling the underlying bonds, thus leaving $1,494,000. In other words, the bankers would pay enough more for an absolute first lien on the property to make it profitable to the company to call the underlying bonds. As a practical matter the company would not pay the call price for the entire issue. It would either directly, or through the bankers who originally sold the issue, quietly buy in the bonds at a price presumably less than par. It might be necessary to call the bonds finally to obtain the last few. It is to protect the company against those who "will not sell" at any reasonable price that a call price is wisely inserted in most bond contracts.

Redemption Rate.—In order that the investor may not consider the clause permitting early redemption a hardship, and therefore hesitate to purchase the bonds, it is provided ordinarily that the company must pay slightly in excess of par for the bonds it calls. This premium ranges usually, from 1 to 3 per cent with the later figure of most frequent occurrence.[y]

For bonds of long maturity or bonds likely to be called for their own sinking fund or for the purpose of refunding just prior to maturity, it is usual to provide that the premium grows less as the date of payment approaches.[z] As the call price,

---

[y] A random selection was made of some 178 bond issues with the call privilege to determine the points of maximum frequency. The extremes were 130 per cent—Liggett and Myers, and P. Lorillard 7 per cent of 1944—and par. Friedlander in his study of 812 industrial bonds issued between January 1, 1914 and January 1, 1924 found that the call price varied between 105 and 107½. For notes—maturities of less than five years—he found the call price, in the vast majority of cases either 102 or 103.[14]

[z] Thus in the mortgage of an issue of bonds of the Dayton Power and Light Company, it is provided that the issue may be called at:

105% from 1911 to 1936.
104% during 1937.
103% during 1938.
102% during 1939.
101% during 1940 and up to the date of payment in 1941.

---

[14] Friedlander, A. J., A Statistical Study of Industrial Bonds and Notes issued from January 1, 1914, to January 1, 1924, Harvard Graduate School of Business Administration (1925).

provided it is slightly above par, influences not the slightest the attitude of the investor toward the issue, it is wise policy for the company to make this price par or only slightly above par. The company is not therefore compelled to pay an exorbitant price to the investor or speculator who refuses to sell his bonds at their intrinsic market value, and insists that the company pay the premium involved in calling them. On the other hand, the presence of a reasonable call price may greatly facilitate the absorption of a small concern into a consolidation.

This point is of importance to the company at the time the bonded debt is created. Contrary to the usual presumption the call price ordinarily plays no part in making the bond attractive to investors. Except in unusual cases the investor buys the bonds at a discount. Under such circumstances, calling the bonds at par will give him a capital profit or increase his yield if he has amortized the discount, so that the remote possibility of an unusual profit represented by a premium will not appreciably increase the attractiveness of the bond to him.

A good illustration is afforded by the case of the Sanford Light and Fuel Company's First Mortgage Bonds. The Sanford Light and Fuel Company operated a small electric utility property at Sanford, Florida. A large corporation, the Southern Utilities Company, acquired the stock of this local company, together with the securities or properties of some twenty other public utility companies operating in Florida and Georgia. Large amounts of capital were furnished by Philadelphia, New York, and New England bankers. A general first mortgage bond was created to cover the company's entire property after all the underlying liens had been paid except

---

Friedlander found that of 812 industrial bonds issued from January 1, 1914, to January 1, 1924, 433 or 53.4 per cent were callable at a flat price, and 373, or 45.9 per cent, were callable at prices that declined as the date of maturity was approached and 6, or .7 per cent, at prices that advanced. Of 242 industrial note issues (maturity less than five years) he found 157, or 64.8 per cent, had flat call prices, 83, or 34.4 per cent, declining call prices and 2, or .8 per cent, advancing call prices.[15]

[15] *Ibid.*

that of the Sanford Company and one other. Meantime the holders of the outstanding bonds of the Sanford Company, about $36,000 in all, were advised by a New York broker not to exchange their bonds for those of the larger corporation, notwithstanding their larger property lien. The larger company was powerless to insist on the refunding unless it called the bonds at a price considerably above their market price. The purpose of the New York brokers was probably to create a "nuisance value" for the Sanford bonds such that the Southern Utilities Company would feel compelled to pay in cash the call price, thereby releasing funds which, in the reinvestment, the New York brokers would probably be able to turn into their own securities.

Convertibility.—To increase the marketability of bonds, or rather to make them appeal to the speculative instinct more or less present in the minds of all investors, the privilege of converting them into stock is attached to certain issues. This privilege is usually carefully guarded so that the holder of the convertible bonds may not profit too liberally by the rise in the fortunes of the company. There are two ways in which this is done. One is to make the bonds convertible only during a short period of time, and the other is to include a provision which permits the company to call the entire issue at any time. The former safeguard is illustrated by the Hundred-Year Refunding Bonds of the Brooklyn Rapid Transit Company which were convertible only up to July, 1915, although they do not mature until 2002; while the latter method of restricting the profit of the speculative investor is suggested by the Baltimore and Ohio Convertible Debenture 4s of 1911, redeemable at par throughout their life. As the peculiarities of convertible bonds give them a separate and distinct standing as a class, it is better to discuss the details of their issue separately.

Lack of Voting Power.—Bondholders are practically never given any voice in the management of the corporation. This statement is susceptible to fewer exceptions than most of the

22
22

tentative generalizations of corporation finance. An examination was made of 6,500 separate bond issues offered to public investment between January 1, 1884 and January 1, 1925 with the special purpose of ascertaining the extent of bondholders' voting powers.[16] In the entire survey 11 cases only were discovered in which the bondholders had any voice in the management. This is ⅙ of 1 per cent of the total cases examined. Most of the cases found, nine out of eleven, are instances of bond issues created at the time of corporate reorganization when the bondholders feel that they have the right to insist on an improved management.[aa]

The practice is sanctioned by long years of corporate practice. Nevertheless, the bondholder is, through the total absence of voting power, reduced to a helpless and often precarious position. Not reluctant to bestow on the bondholders some of the risks of the enterprise that belong more properly to partners than creditors, the executives guard assiduously their power of control over the administration of the company. Yet it is just this absence of a voice in the management by what is often the largest financial interest in the corporation, that may create intolerable conditions often verging on actual fraud. The bondholder is made to suffer quietly without power of remedy, while

---

[aa] There are, of course, certain exceptions, as for instance, the Erie Convertible Issues of 1953, where it is provided that the bonds shall carry the same voting power as the same par value of stock. An issue of the Chicago and Northwestern Bonds, due 1915, carried the voting privilege. There are many variations of part-voice in the management. For example, the Adjustment 5s of the New York Railway Company (the surface lines) had the privilege of electing a part of the board of directors. The old issue of Third Avenue Railway Adjustment Income 5 per cent bonds dated January 1, 1910 and due January 1, 1960 contained the following provision. "Until all accumulations and 5 per cent interest has been paid for five successive years, holders of these bonds have the right to vote at stockholders' meeting on the basis of one vote for each $100 bond."

An attempt is made in the Mexican National Railroad issues to apportion the voting privileges. The first mortgage bondholders had two votes for each $1,000 par value—until dividends had been paid for two consecutive years—while the second mortgage bondholders had only one vote for each $1,000 par value.

---

[16] Mead, R. F., Bonds Carrying Voting Rights, Harvard Graduate School of Business Administration (1926).

the stockholders, who have no actual investment, mismanage the corporation's property.[bb]

Conditions of Enforcement.—One of the most important provisions in every mortgage, deed of trust, or other agreement under which bonds are issued is that defining the conditions under which the bondholders may enforce their claims in case the corporation does not fulfil its promises. The promise most frequently broken is that of meeting the interest payments, although there are many cases in which a corporation has to be called on to comply with the specific provisions of the bond agreement regarding a sinking fund or other particular covenants. In practically every case it is expressly stipulated that the trustee may declare the principal of the bonds due and payable, in case the corporation fails to meet its interest charges and the default continues for longer than a few months—usually three. It may be remarked that a proposed bond issue of the old Philadelphia and Reading Railroad contained a provision estopping action by bondholders during a period of three years after default—the extreme limit.

After the default in the interest and the lapse of the period of grace, the trustee has the legal right to initiate legal action against the corporation, but as a general thing does not act until requested to by holders of a majority of the outstanding bonds, and—what is more important from the trustee's

---

[bb] Such a situation resulted in the old Chicago, Rock Island and Pacific and the Missouri Railroad. Both illustrate the bad results to the bondholders of unscrupulous railroad management. In the former case the Chicago, Rock Island and Pacific Railroad's Collateral Trust 4 per cent Bonds were secured by the deposit of the stock of the Chicago, Rock Island and Pacific Railway, the operating company. But the voting power of that stock was lodged in the hands of certain Wall Street speculators who failed to maintain the physical property of the road. As a result, the bondholders, when adjustment was required in 1914, found that the stock behind the bonds was of little value.[17] In the case of the Missouri Pacific the improvident management of the Goulds depleted in the same manner the value of the physical property of the road and the junior bondholders in the end were forced into the surrender of their lien.[18]

---

[17] For other discussions of the Rock Island bonds see accounts given in Daggett, S., Railroad Reorganization, Chap. IX (1908); Ripley, W. Z., Railroads, Finance and Organization, 524 ff. (1915).

[18] For Gould mismanagement, see Ripley, W. Z., Railroads, Finance and Organization, 516 ff. (1915).

point of view—until he has been provided with money to defray the cost of litigation. In order to obtain the strength of concerted action it is customary for prominent holders of the bonds, or bankers, to form themselves into protective committees which act for the scattered bondholders. Ordinarily an adjustment is reached between the bondholders' committees and the old stockholders, as a result of which some concessions are made by all parties concerned. The bankrupt corporation is reorganized, usually, into a new corporation in which the bondholders, through their representatives, have considerable voice in the management.

The single bondholder is usually powerless to enforce the payment of either the interest or the principal of his bond, and in many cases his hands are effectually tied by a provision which requires the approval of a majority of the bondholders before the trustee may take the necessary protective steps. Seldom is it possible for the single bondholder or even his committee to secure the strict enforcement of the terms of the mortgage or agreement. So many legal and business obstacles can be thrown in his way by the corporation officials and so little value have the assets of a bankrupt corporation in liquidation, that experience has shown that most bondholders, like stockholders, are bound to bear some of the losses of a corporation's failure.[19]

Investment Status.—Aside from details of specific security there are certain investment considerations which bear upon the general subject of bonds as contrasted with stocks. Perhaps the most general is the width of market. Banks, insurance companies, and investment companies will not ordinarily purchase stocks. Accordingly the problem of securing money for a new enterprise and even the problem of financing an expanding business would be much more difficult were it not possible to issue bonds. They are the form of investment of the cautious-minded, conservative saver who looks upon a business enterprise as an instrument of producing a steady income rather than a sudden or fictitious profit.

---

[19] For further discussion of the procedure to enforce the payment of bonded obligations see Book V, particularly Chapter III.

Corporate bonds may be roughly divided into four classes, but vaguely separated from each other.[20] The highest grade consists of those bonds which are the legal investments for the savings banks of the New England states and New York. Such bonds have paid their interests regularly, and are obligations of corporations—usually trunk line railroads—which have earned and paid dividends on their capital stocks for a long period of time.

The exact qualifications which a bond must meet in order to be classed as "legal" vary with each state. The laws of the five New England states and New York have been the basis for nearly all of the statutory trust fund restrictions for other states. Of the laws of these six states, Massachusetts and New York are most rigid, Rhode Island and Maine the least so. Any bond which meets the requirements of all these states is likely to be of a very high investment grade, although there are strange anomalies to be found. Generally speaking, the savings bank laws represent the investment wisdom of the preceding generation rather than that of the present. There are many bonds, therefore, which were once unquestionably sound, but which the contingencies of an ever-changing economic background have rendered of inferior quality, although they still retain their legality. The bonds of the New York, New Haven and Hartford and the Boston and Maine railroads are illustrative cases. As the laws are constantly changing the student should consult the latest summaries issued by the banking departments of the several states.[21]

---

[20] There have been many attempts to classify bonds from the point of view of investment security. The results have not always fitted with subsequent facts. Certain annual publications by Moody, J., attempt to classify all corporate securities—Analysis of Railroad Securities, Analysis of Public Utility and Industrial Securities. The ratings probably have little value except as very rough guesses. There have been many books written purporting to embody a science of investment bonds. Chamberlain, L., Principles of Bond Investment (1911), Lowenhaupt, F., Investment Bonds (1908), Mundy, F. W., "Railroad Bonds as Investment Security," 30 An. Am. Ac. Pol. Soc. Sci., 312 (1907), Sakolski, A. M., Principles of Bond Investment (1925). The Great War has so changed the social and economic background upon which the principles of a science of investment rest that the pre-war books have become obsolete, and the future is too uncertain to permit of intelligent forecast—much less the prediction of concrete investment values.

The second class consists of very high-grade bonds which do not meet the technical legal requirements permitting savings banks to purchase them. Many of these bonds are of a higher grade than "savings bank bonds," but fail to meet some insignificant provision of the law which is of material importance for the vast majority of bond issues, but which is of little consequence in the particular case. They would include the first mortgage bonds on important parts of those railroads which, by reason of a poor dividend record, are not admitted to a savings bank standing. For example, the First Mortgage 4 per cent Bonds (extended 1947) of the old New York and Erie Railroad is certainly one of the strongest corporation obligations now available for investment, a first mortgage of $5,500 per mile on the original stem of the Erie system, the shortest line between New York and the Lakes. The average net earnings of the last five years have been over 102 times the interest requirements and over six times the total outstanding bonds of this issue. The bonds have withstood three separate reorganizations. They are *not* legal for savings banks, not even those of New York, because the operating railroad company pays no regular dividends. Yet the Debenture 4 per cent Bonds of the Chicago, Milwaukee and St. Paul Railway, without anything like the fundamental security, were legal, merely because of the dividend record of the St. Paul system, long after the road's credit involved serious doubts.

This class would include, also, the old closed first mortgage bonds of public utility companies showing net earnings four or five times the interest charges. The investor who desires unquestioned security together with reasonable return, so far as that is humanly possible, would do better to purchase the bonds of this class rather than those legal for savings banks;

---

[21] Although there have been numerous publications dealing with trust investments, the best available source of information is the State and City Supplement of the *Commercial and Financial Chronicle*. Before treating of the debt of each state the editor gives a comprehensive and thoroughly reliable summary of the state laws controlling the investment of trust funds.

the feature of special legality gives the latter a glamor and creates for them a fictitious demand which considerably enhances their market value but decreases their yield.[cc]

The third class consists of the great majority of bonds offered on the stock exchanges and particularly by the bond houses. Most of those belonging to this class are probably sound investments, although those issued under great open-end mortgages degenerate easily into a lower class, if the credit of the issuing corporation shows evidence of decline. These bonds are the investments of the conservative business men who can set aside time, at regular intervals, to make a short statistical study of their securities. The yield is ordinarily greater than that of the preceding class by more than one-half of one per cent and, if the risks are well distributed, this margin will fully equalize any occasional losses.

The speculative bonds constitute the fourth class. The continued payment of interest on this class is a matter of doubt and the security upon which they rest is not of substantial intrinsic value. Many of these speculative bonds are actively traded in on the various stock exchanges and may show fluctuations in market price that parallel the more speculative stocks. These bonds are in no sense investments. Yet if a man is cursed by the craving for speculation in securities the dice are less likely to be loaded against him and his careful judgment will be more dependable in bond than stock speculation.

[cc] Taking ten well-known savings bank bonds, the average yield was was found (January 1, 1916) to be about 4.38 per cent. Ten bonds, selected at random, of equally high grade but not legal for New York and New England savings banks—four underlying divisional bonds (one of the Erie, one of the Louisville and Nashville, one of the Baltimore and Ohio, and one of the Southern Pacific), three closed underlying gas bonds (one of New York City, one in St. Louis, one of Chicago), and three closed underlying electric light bonds (one of New York, one of Detroit, and one of Philadelphia)—show an average net return of 4.90 per cent. This is a difference of one-half of one per cent. This margin represents the loss in annual return due to the greater demand necessarily existing for savings banks and public trust fund bonds. It is the penalty exacted from the investor who relies on the second-hand judgment of others rather than on his own.

Handicap of State Tax Laws.—It should be noted in passing that the investment character of bonds has frequently suffered from the purely fictitious handicap of state tax laws. On the assumption that stocks represent ownership in property already directly taxed, and that bonds are mere symbols of money loaned, many states—especially in New England and the East—place taxes upon bonds, but allow a large variety of stocks to go untaxed. The direct effect of these tax statutes is to turn the fund of the small and conscientious saver who declines to evade the law away from bonds and into stocks. The small saver is notoriously ignorant of investment values, and he is far more likely to sustain a loss through investment in the kind of stocks he would naturally select than in the average of investment bonds. Yet the savings of just this type of investor are of the utmost consequence for society to conserve because of the social significance of wide-spread habits of thrift. Only through the influence of such habits can society secure the capital necessary for industrial progress and for the repair of the wastes of war and the obsolescence of the instruments of production. Consequently, such tax laws operate against the conservation of social capital.

Proportion of Bonds and Stock.—It is interesting to observe, finally, the varied proportions of bonds and stocks which are issued in different industries and at different times. A recent study[22] has been made using the data furnished by large companies. It was found, in the period of 1916 to 1924, in the financial plan of railroads over half of the securities issued were bonds, among the local utilities a little less than half of the securities issued were bonds, while among the industrials the average was distinctly less than a quarter of the capitalization in bonds.[dd]

[dd] The following summary from the study cited above may be of interest:

"Results and Significance The average debt of Industrial Groups, Utilities, and Railroads for the period 1916-1924, including companies with no debt, is as follows: (1) railroads 54.5%, (2) utilities 45.6%, (3) steel 24.9%, (4) chemical 19.4%, (5) rubber 14.8%, (6) tobacco 14.7%, (7) sugar 13.6%, (8) food 12.8%, (9) oil 12.3%, (10) specialties 11.3%, (11) building 9.3%, (12) mining 8.7%, (13) equipment 7.0%, (14) retail stores 4.6%, (15) motor 4.4%."

---

[22] Emans, Karl, Harvard Graduate School of Business Administration.

CHAPTER V

BONDS SECURED BY PLEDGE OF SPECIFIC PROPERTY

The Classification of Bonds.—There are various methods of classifying bonds, each depending on some characteristic which is deemed fundamental.[1] The two methods most in use depend on either the kind of security behind the bonds or else the type of industry in which the issuing company is engaged. Although there are distinct differences in the kinds of bonds customarily issued by different enterprises—railroad bonds differing in many respects from mining bonds—still the differences are not fundamental. Any exhaustive classification according to types of enterprise would be of little value as a study in bonds; it would be a classification of investment risks. A classification, on the other hand, according to the nature of the security behind the bond is both valuable from the point of view of the investor, and illuminating as a study of the nature of bonds. It is in this matter of the character of the security that bonds differ fundamentally among themselves and the marked variations from standard forms occur. The following classification though not exhaustive will prove convenient:

CLASSIFICATION OF BONDS ACCORDING TO SECURITY

I. Bonds specifically and directly secured by property. (Discussed in the present chapter.)

---

[1] For discussion of four different schemes of classification of bonds see Chamberlain, L., The Principles of Bond Investment, Chap. VIII (1911). Every writer on corporation finance has some special classification. Also Ignatius, M. B., The Financing of Public Service Corporations, Chap. IX (1918); and McKinsey and Meech, Controlling the Finances of a Business, Chap. XVI (1923). There is also a brief but clever classification by Selden, G. C., "The A. B. C. of Bond Buying," 22 Mag. of Wall Street, 485 (1918). Investment Bankers Assn., Lagerquist.

[illegible]

1. A first or senior lien on specific physical property:
    - (a) General first mortgage bonds
    - (b) Divisional bonds
    - (c) Special direct lien mortgage bonds, such as those on terminals and real estate.
2. A secondary or junior lien on physical property:
    - (a) Second and subsequent mortgage bonds
    - (b) General and consolidated mortgage bonds
    - (c) Refunding mortgage bonds.
3. A lien on specific securities owned by the corporation:
    - (a) Collateral trust bonds
    - (b) Secured short-term notes.

II. Bonds secured largely, if not entirely, by the general credit of the corporation. (Discussed in the succeeding chapter.)

1. Obligatory promises:
    - (a) Receiver's certificates
    - (b) Assumed bonds
    - (c) Guaranteed bonds
    - (d) Joint bonds
    - (e) Debentures.
2. Conditional promises:
    - (a) Income bonds
    - (b) Participating bonds.

First Mortgage Bonds.—First mortgage bonds, as the name implies, are secured by a mortgage or deed of trust which, in theory at least, conveys the physical property held under the mortgage to a trustee for the benefit of the bondholders in case the interest or the principal is defaulted. One is compelled to interpolate the phrase, "in theory at least," because the modern practice of the courts in appointing receivers at the first intimation of financial difficulties, tends to defeat both the letter and the spirit of the mortgage bond. At all events, except under the authority of the court, first mortgage bonds cannot be superseded by later liens. The fundamental security of a first mortgage bond consists therefore, in the assurance that, except by a decree of a court, the bondholder has the first claim to the physical property in case his rights are in jeopardy.

The custom of securing a debt by a deed of trust is of very ancient origin. The researches of archeologists in Asia Minor have recently brought to light a deed of trust for an olive press as security for a debt, which was executed upwards of 5,400 years ago. Mortgage bonds, in the modern acceptation of the term, are merely an adaptation of the ancient theory of real estate mortgages to the exigencies of the business corporation.

In America, they owe their origin to periods of financial stress. The first sections of the early railroads of the Atlantic seaboard were built entirely by stock subscription just as the New England cotton mills are now built. This custom prevailed down to 1840. It was found often that more money was required to finish and extend the early sections than had been anticipated, and the stockholders, not wishing to increase their subscription, consented to the use of the railroad already built as a basis for loans. This was in the period before 1850, when the nation was dependent on England for the capital required to finance internal improvements, and the English bankers required a security for their loans which should possess a specific lien on physical property. Once the practice of issuing mortgage bonds had been established, it was found difficult to obtain capital from the sale of other forms of securities, but comparatively easy to sell this form. As a result, railroads came to be built entirely out of the proceeds of mortgage bonds, the promoters retaining for themselves the stock for which they had contributed little except promoting ingenuity. From railroad mortgage bonds the practice extended first to horse railroads and lighting companies and very much later to manufacturing companies.[2]

---

[2] The bibliography covering railroad mortgage bonds is very large. The fullest and most exhaustive discussions of the relative priority of bonds is found in railroad finance, where the subject is most complex. The White and Kemble's "Atlas of Railway Mortgages" is an elaborate series of charts which portray by means of colored lines the relative position of mortgages on all the railroads of the country.

Variety.—A great variety of so-called first mortgage bonds exists. Railroads, traction companies, lighting companies, power dams, manufacturing corporations, and even mines and quarries, have issued their first mortgage bonds. Yet with respect to the economic significance of the underlying security, there are great differences among these different classes. In some cases, as with mines, the property acquired through foreclosure of the mortgage would be almost worthless, because if the mine could not be made to pay by the original owners, the chances are even less favorable for the bondholders. On the other hand, a railroad, provided it does not run through a desert, is practically sure of earning some return to its bondholders. It has a fundamental economic value which a mine or a manufacturing plant has not, through the monopoly of business given to it by mere geographical location. This economic value is inextinguishable. Even the courts will safeguard it. For this reason railroads have been able to bond their properties for a far higher proportion of their full cost or reproduction value than have other forms of business enterprise.

The ultimate basis of all economic values, as will be observed frequently hereafter in this study, is the social service evidenced by earning power. This is the ultimate basis of the security of railroad bonds. Accordingly, the confidence of the investing public in these bonds is based on the assumption that a particular railroad will always perform a social service entitling it to some return on its capital and that the bondholder, possessing a prior claim to this return, is assured of a kind of social protection. This confidence in earning capacity as the real basis of security, though only half-consciously realized, explains why certain types of bonds, not based primarily on earning power, are not recognized as high-

---

For further general discussion of railroad bonds see Cleveland and Powell, Railroad Finance, Chap. IV (1912); Ripley, W. Z., Railroads, Finance and Organization, Chap. I (1915).

For study of railroad mortgages, where the greatest variety exists, see Mitchell, T. W., 1 Jour. Acc. 357 (1906). For brief, clear statement of the specific covenants of a corporation mortgage see Lilly, Wm., Individual and Corporation Mortgages (1918).

grade securities, even though the cost value of the property pledged far exceeds the total issue of bonds.

An illustration of the point just noted may be seen in the case of bonds secured by a first mortgage on standing timber. These constitute one of the few types of first mortgage bonds based on a mere market value of physical property, that is, the sale of physical property as contrasted with its earning power. Timber, standing uncut in the forest, has absolutely no earning power. It is only after the timber is cut, driven to the mill, and manufactured into lumber that it possesses an economic exchange value. Its mere growth, as such, produces no money with which to meet recurring interest payments of bonds. The interest on the timber bonds can be met and the principal ultimately paid only as the timber is cut and marketed. If something interferes with the regular and systematic exploitation of the timber, nothing is realized with which to meet the bond obligations, no matter what the appraised value of the timber may have been.

The After-Acquired Property Clause.—First mortgage bonds, or mortgage bonds in general, may or may not contain the "after-acquired property clause."[3] When present, the mortgage is made to cover not only the existing property but that subsequently acquired as well. From the point of view of the investor, this after-acquired property clause very much enhances the value of the bonds, because all property subsequently bought or built passes automatically under the lien of the mortgage. It is, however, a source of annoyance to the corporation for it stops the issue of any further first mortgage bonds on new property. For that reason, the after-acquired property clause is now seldom inserted in closed mortgages, although it is still common in open-end mortgages. If it exists in any underlying mortgage, it is usually avoided by

a six per cent Bond of Goodyear to draw more than $106?

---

[3] For example, an old-fashioned after-acquired clause was worded so as to have no loophole. "All the present and the future to be acquired property of said railroad company in and relating to its said railroad, and all the right, title, interest and equity of redemption therein." Trust mortgage, C. B. & Q. R. R. Co., July, 1873, page 6.

creating a new corporation which assumes title to the additional property. This new corporation issues first mortgage bonds which are then assumed or guaranteed by the old parent corporation. This legal subterfuge explains the existence of many of the subsidiary corporate entities frequently created by our large railway systems for no apparent reason.

Divisional Bonds.—Divisional bonds are usually first mortgage bonds secured by a section or division of a railroad's property. They are usually either the relics of old bond issues existing before a consolidation or a reorganization, or else the still outstanding bonds on the integral parts of a great system. The idea has been carried over into other types of enterprises, so that a bond on a part of a street railroad, a section of a hydro-electric company's transmission lines, or even a single building of a manufacturing plant has been called a divisional bond.

The significance or economic value of divisional mortgage bonds is even more subject to individual qualifications than is the case with general first mortgage bonds. If the division covered by the mortgage is essential for the conduct of the railroad's business, the bonds will be protected at all hazards. Even the interest on the first mortgage bonds on a large part of a railroad system may be defaulted, while that on the underlying bonds of the important divisions are paid. A recent case that emphasizes the principle very forcibly is that of the bankrupt Atlanta, Birmingham and Atlantic Railroad. Although the failure was so serious and the subsequent reorganization so drastic that even holders of receiver's certificates were forced to undergo sacrifices, the underlying divisional bonds of the Atlantic and Birmingham Railroad were protected in every way. On the other hand, if the division covered by the mortgage is not of great importance to the railroad—perhaps even an occasion for loss—the officials may be entirely willing to default the interest on the bonds and allow the bondholders to take the property and operate it as best they can. After the failure of the Chicago and Alton Railroad in 1922 the receivers sought to force the bondholders of a little branch line—the Rutland, Toluca and Northern Railroad—to take over the operation of the property; and failing in this they besought the Illinois Commerce Commission to permit the abandonment of the line.

ee Conditions

It is therefore of great importance in determining the position of a divisional bond to ascertain three things: (1) whether or not the property covered by the mortgage is self-supporting; (2) whether or not it is essential for the business of the whole system; (3) whether or not the bond is guaranteed as to principal and interest by the corporation of whose property it is an integral part. If the bond meets none of these conditions it may be of little value, even though it is the divisional bond of a strong railroad system. On the other hand, if it meets these conditions, it may be in a position of unquestioned strength, even though it is the divisional bond of a bankrupt road.[4]

Special Direct Lien Bonds.—Special direct lien bonds are bond issues secured by a direct first mortgage on real estate, terminal property and bridges, and similar special structures. The purpose in issuing such special bonds is usually to sell securities at a lower interest rate than the general credit of a corporation warrants. This is often possible because of the feeling in the minds of many investors that a direct lien on valuable real estate is to be preferred to a general lien on widely scattered properties.[5] Such investors presume that terminal property in large cities may be taken by the trustees of the mortgage and sold for other purposes, in case the railroad fails to meet the interest and principal of its terminal bonds.[6] Quite generally in order to make the security stricter in case of receivership, a large corporation may arrange to have its real estate owned by a subsidiary corporation which leases the property to the parent company.[7] In that case, if the main corporation goes into the hands of receivers, the trustees under the mortgage may hold the real estate independent of the rest of the corporate property. Frequently too, the special terminal and special real estate corporation and its bonds are created in order to avoid placing the new and valuable property under the lien of an old general first mortgage having the after-acquired property clause. The device of an independent terminal corporation is also resorted to when the terminal is built by several railroads, no one of which is willing to assume the financial responsibility alone.

---

[4] For discussion of the value of guarantees, see succeeding chapter.

For further discussion of divisional bonds in the growth of railroad systems, see Ripley, W. Z., Railroads, Finance and Organization, 124 (1915).

[5] Specific lien bonds on real estate are not confined to transportation companies; consider Western Union Telegraph Company's Real Estate 4½s of 1950, secured by the company's land, buildings, and equipment in New York and Chicago; Armour and Company's First Mortgage Real Estate 4½s, 1939.

The presumption that the terminal property underlying the terminal bonds has an essential value to the railway system is not always strictly true, nor is it true that the great investment in terminal properties is warranted by the specific contribution of terminals to railway earnings. In fact it is probable that most city terminals do not pay from any point of view the cost of construction. The great terminal in Washington is an example of a foolish and extravagant expenditure. With the default of the Chicago Terminal Company's 4s, investors recognized that a terminal bond to be sound ought to be secured by a mortgage but little, if any, larger than the value of the land or else guaranteed by a strong railroad corporation. In another reorganization the holders of the Georgia Terminal Company's First Mortgage Bonds, secured ostensibly by valuable terminal properties, were asked, in the reorganization plan of March, 1914, to accept almost worthless common stock, and that only after they had bought 16 per cent of a preferred stock at par—a price far above its actual value. Seldom have terminal bonds been so ruthlessly sacrificed.

---

[6] This device is explained in more detail in connection with joint bonds, because this special corporation is practically a necessity if its property is to be used by more than one corporation. (Chapter VI.)

[7] The best illustration of security by lease is that of the equipment obligations, for discussion of which see Chapter VII.

In addition to terminal bonds there are other types of special security bonds. Land-grant bonds, frequently issued in the early days of railroad building, are, as the name implies, secured by the pledge of land granted to the railroad by Congress or the state. Other forms are dock bonds, bridge bonds, wharf bonds, ferry bonds, warehouse bonds.[8]

Some issues of bonds bear in their name the representation of greater security than they actually possess. The "first lien" and "prior lien" bonds are not always of the nature of first mortgage obligations. This divergence between the form and the substance is especially conspicuous in the case of the obligations of a railroad corporation which merely leases the lines and equipment from another corporation. Sometimes the two corporations are indistinguishable in name except by the substitution of the word railroad for railway.

Thus the Chicago and Alton Railroad 3½ per cent bonds are called "First Lien," which may be a fact as regards the rail*road*. Yet the property of the rail*road* consists almost entirely of the equity in the Chicago and Alton Rail*way*, which has its own bonds outstanding. The first lien of the railroad is therefore not on physical property, but merely on a leasehold of physical property covered, quite fully, by another mortgage.

A similar confusion of terms is often involved in the use of the words "first and refunding" to imply a first mortgage bond. It is true that the mortgage may be a first lien on actual property, but the property covered may be relatively insignificant compared to the entire property of the corporation.

Thus the so-called First and Refunding Bonds of the Missouri Pacific Railway were merely a first mortgage on 167 miles of line out of a total of 3,700 for the entire system, and these 167 miles constituted a relatively insignificant part. In such cases the term "first" is a mere subterfuge employed for the purpose of evasion. All such conscious misrepresentations are unwise, inexpedient, and tend to destroy public confidence in corporate securities by obliterating apparent and fundamental distinctions.

---

[8] Brief discussion, Cleveland and Powell, Railroad Finance, 77 (1912).

Second and Later Mortgage Bonds.—Second, third, and later mortgage bonds are, as their names imply, subsequent in their lien to underlying bonds senior to them. This question of priority of lien, while nominally concerned with the relative position of the bondholders at any division of assets, is actually a matter of the relative priority with regard to the payment of interest. Interest is paid first on the first mortgage bond, then on the second, and so on, each issue following in the order of its relative lien on the physical property. If the earnings of the corporation are ample, there is little difference between a first and a seventh mortgage, for the interest on all issues is paid before any dividends can be set aside for the stockholder.

Thus there were until recently five successive mortgages on the property of the old New York and Erie, the original stem of the Erie Railroad. Yet so small is the aggregate of these liens, as compared with the value of the physical property securing them and the earning power of this property that the claim of the fifth mortgage bonds is practically the same as that of the first. This was acknowledged by the simple fact that the investment yield of all five of the issues varied only within narrow limits. Ordinarily it was practically the same.

But if the earnings of a corporation fall off so as to endanger the solvency of the corporation, the relative position of the various mortgage liens becomes a matter of primary importance. Interest may be paid on the prior mortgage bonds although it is allowed to lapse on the later issues; and in the adjustment of sacrifices at the time of a reorganization the first mortgage bonds are affected least and the later mortgage bonds most.

The mere name does not necessarily of itself signify the real character of a bond's security. Especially is this true of the bond issues of the older railroad systems. What purports by its name to be a third mortgage may in fact be an absolute first mortgage by reason of the fact that the two earlier mortgages have been paid up or else refunded into a later mortgage.[a] Yet the prejudice of the investor against the name of a second or third or sixth mortgage bond, no matter how sound the security may be, has led the railroads to cease the issue of bonds named in this manner and to adopt the words "general" or "consolidated," or "refunding," or similarly illusive names for their later bond issues.[b] These names are used notwithstanding the fact that the property securing the bonds is fully covered by first and earlier mortgages. In fact, so seldom are words "second," "third," or "fourth" now used in describing new mortgage bonds that when the name appears, it may be presumed to refer to some old, underlying mortgage bond that has withstood panics and reorganizations. Instead, therefore, of implying weakness it may indicate a strength underlying the whole debt structures of the railroad system. The Fifth Mortgage Bonds of the New York and Erie Railroad, previously referred to, are regarded as so sound that they sold in 1912 (before the Great War) on a 4 per cent basis, probably as high as any non-savings bank railroad bond. In 1925, at the time of a recent peak of bond prices they commanded a 4.47 per cent basis while Pennsylvania Railroad Consolidated 4s, legal for the savings banks of New York and New England, sold on a 4.52 per cent basis.

Equally confusing in name are those few examples of bonds which have different kinds of security for different parts of the same issue, all bearing the same title and indistinguishable except by reference to the original indenture under which they were issued. The Rogue River Electric Company Prior Lien 5s of 1937, are of an authorized issue of $700,000. Of these bonds, numbers 1 to 250 have a lien on the property of the company superior to that of the remainder of the issue. An entirely different kind of confusion arises from those issues having identical security but of entirely different names.

---

[a] Thus, the absolute first mortgage bonds on the Long Island system are called the Second Mortgage 7s.

[b] Alexander J. Hemphill, then Chairman of the Board of Directors of the Guaranty Trust Company of New York, testified September 9, 1913, before the Interstate Commerce Commission, that a fourth mortgage of a railroad does not appear as a very attractive investment if it is so designated.

The Erie Railway Consolidated 7s, 1930, are secured by all the property of the old New York and Erie Railroad, having been created in 1870 at the time of the first Erie reorganization. The New York, Lake Erie and Western Consolidated 7s, 1930, secured by a deposit of certain of the coupons of the Erie Railway 7s, have, therefore, the same fundamental security.

General and Consolidated Mortgage Bonds.—General and consolidated mortgage bonds are in effect issued under blanket mortgages which come after all the preceding mortgages.

For illustration, the Erie Railroad's General Lien Bonds, due 1996, are preceded by a large issue of Prior Lien bonds, by no less than six different and successive blanket issues, and by a large number of divisional mortgage bonds of great variety. In a large number of instances, especially in the older railway systems, the so-called general or consolidated mortgage bonds have become, in effect, first mortgages on the entire system, owing to the fact that the earlier first, second, third, etc., mortgages have become due and have been paid. Ordinarily a general mortgage bond agreement contains the after-acquired property clause, so that, once such an issue has been executed it is difficult, if not impossible, to issue any first mortgage bonds having a first lien on any of the company's property.

At the present time it is common to call general or consolidated open-end mortgages by the term "refunding," in order to throw emphasis on the fact that the issue is designed primarily to pay off the prior existing liens. Such a term conveys, to the mind of the investor, an implication that the issue is of increasing security and it is therefore the more readily salable. After the earlier issues have been paid off what purports to be on its face merely a refunding mortgage may be, in reality, a first mortgage.

One of the earliest, if not the very earliest large railway refunding issue was that of the Chicago, Burlington and Quincy Railroad in 1873. The indenture securing this issue expressed clearly the idea underlying all modern refunding mortgages. "Whereas it is desirable to fund all said several classes of absolute indebtedness into bonds of one class as nearly uniform in character as may be, to be secured by a single mortgage." [9]

With rare exceptions complete refunding and unification of underlying railway issues has been accomplished only at the time of a reorganization, because of the practical impossibility of inducing the holders of a multitude of different issues to consent voluntarily to the exchange of prior lien bonds into the refunding issue. Without such exchange, of course, the equity to the holders of the refunding issue was so small as to make the bonds practically unsalable. The first great piece of financing of this kind was that of the old Atchison, Topeka and Santa Fe Railroad at the time of the reorganization of 1889.[c] At that time forty-one different issues, aggregating over $160,000,000, were refunded into two blanket issues. Subsequently, in the railroad reorganizations of the middle nineties, large refunding issues were uniformly used. Of late years, especially since 1910, many railroad systems have discarded the limping step-by-step policy of financing improvements and have issued instead great blanket, refunding mortgages of long duration, with the conscious purpose of retiring all the previously issued bonds and making future improvements by the sale of bonds secured by this one general and refunding mortgage.

Often a little broader idea is conveyed by calling an issue an "extension and refunding," or an "improvement and refunding" mortgage bond. Especially would such double terms

---

[c] Similar refinancing had been accomplished in the Northern Pacific reorganization of 1875, and that of the Wabash of 1887. Neither was, however, as important or as extensive.

---

[9] Trust deed for the $30,000,000 Refunding Mortgage of 1873, page 4. This mortgage has been referred to several times already. It was one of the first comprehensive refunding mortgages issued by our large railway systems.

be used if emphasis is to be laid on the use of some of the new money for betterment. Although large in amount such great open-end bond issues may not be a first lien on any of the company's property and only an inferior junior lien on the main portions. Thus, the great Refunding and Improvement Mortgage of the New York Central is a third lien on the main lines east of Buffalo, a fourth lien on those west of Buffalo, and a second and third lien on various branch lines.[10] The idea, however, in this entire group of bond issues is that there exist underlying mortgages and the general, the consolidated, the refunding, the improvement or extension mortgage, by whatever name it is called, is subject to all these underlying liens. The student of finance is left to his own resources to ascertain how real is the actual lien on the physical property.

Provisions and Conditions of Issue—Vagueness.—The provisions and conditions of issue of bonds under these comprehensive refunding mortgages are defined only vaguely or not at all. The great Refunding and Improvement Mortgage of the New York Central dated October 1, 1913, and due 2013, permits an issue of bonds up to three times the capital stock, which amounted in 1926 to $305,000,000 outstanding and will subsequently amount to $400,000,000. So that the total issue of these bonds may now reach over $900,000,000 and could later be extended to over a billion dollars. There are no restrictions on the first $500,000,000 of the bonds to be sold to pay for improvements and extensions, but further issues must be restricted to 80 per cent of the cost of the additions to the property of the road. Although by name a refunding issue, it is a misnomer, as the underlying bonds may be extended, at the option of the company, until one month before the maturity of the issue, or September, 2013. Bonds under this mortgage may be issued to acquire stocks of other companies or for other corporate purposes; they may be at any rates of interest that the directors fix, and the conditions of redemption and the terms of payment may be modified and changed. The directors of the road may even make some of the bonds convertible into stocks under conditions which they defined.[d] Nevertheless, while the provisions of this New York Central refunding issue may be extreme in their vague elasticity, they are in accord with the spirit of railroad finance at the present time. As a consequence of which the small, closed, clear-cut mortgage bond is rapidly becoming extinct. This change of point of view is an acknowledgment on the part of railroad financiers, investors, and of the public that railroad debt is permanent, and this view has been tacitly accepted by the law and by public opinion.

---

[10] So far as the writer can discover, it is not a first lien on any physical property. (The recent additions are fully covered by the underlying Consolidated Mortgage of 1998, the stocks deposited are all subject to prior liens, and the Beech Creek bonds are only second liens on physical property.)

As the strength of refunding issues of bonds rests largely on the increase in the equity behind them, when the prior liens are paid, it is important that the corporation assure the investor that the prior liens will not and cannot be extended. Sometimes, in spite of the fact that the refunding mortgage contains a provision implying that the underlying bonds will be retired when they fall due, the company finds it possible to evade the provision of the refunding mortgage and extend those bonds.[e] Such tactics, however, on the part of corporation officials, although perhaps legally permissible, react against the general credit of their company and investment confidence in general.

---

[d] It is notable that the New Jersey Public Service Commission, on the whole liberal toward corporations, disapproved of this mortgage as applied to property within New Jersey, because it "departs so radically from the old-established principle that loans ought not to exceed assets." For details see decision dated December 19, 1913.

It should be noted in passing, however, that no matter how broadly and loosely drawn, the bonds are bonds and their holders have the protection of a right of foreclosure in case of default. They stand ahead of all debentures. They are of conspicuously greater strength than preferred stocks. In April, 1914, irresponsible parties, in order to injure the sale of these very bonds, alleged that "the position of these bonds is scarcely better than that of a preferred stock without voting power." Such a statement is utterly false. It is a case either of profound ignorance of financial principles or wilful misrepresentation.

[e] This is illustrated by an unfortunate refunding operation of the Tacoma Gas and Electric Company. There were $416,000 First Mortgage Bonds, due May 1, 1915. There was also an issue of Tacoma Gas Light Company Refunding Mortgage Bonds, due 1926. Of the latter $416,000 were reserved to retire the issue of the underlying bonds due in 1915. Yet when these matured, instead of retiring them by the bonds reserved, they were extended.

This fact is generally acknowledged. Frequently, indeed, when the covenant in a refunding issue might be interpreted so as to permit the re-issue of an underlying bond, a corporation refuses to avail itself of a technical evasion and pays off the underlying issue as the intent of refunding implies. Nevertheless, great care should be exercised in drawing the refunding mortgage to be sure that the obligation of the corporation with respect to the underlying bonds is clear.

Collateral Trust Bonds.—Collateral trust bonds are not secured by a lien on physical property, but rather by a lien on securities deposited with a trustee as collateral.[11] Their ultimate security is therefore indirect or secondary, as it rests not on the deposited collateral but rather on the physical values of the property represented by this collateral.

Prior to the Richmond and West Point Terminal Railway and Warehouse Company's Collateral Trust Bonds of 1887, the issue of collateral trust bonds occurred only in special cases when the issue of ordinary mortgage bonds was inexpedient. Since 1894, however, they have occurred with increasing frequency until, at the present time collateral trust bonds have now assumed a far-reaching significance in our American finance, a significance which is bound to increase as financial policies and procedures grow more complex. They were used at first by railroads in order to bring into a single merchantable issue of bonds a variety of divisional and branch bonds in themselves unmarketable because of their insignificant size or else when some legal obstacle prevented the issue of ordinary bonds.[f] Later the railroads used collateral trust bonds to build

---

[f] To protect its second mortgage bonds on the old Union Pacific Railway, the United States Government, in 1873, prohibited the road from issuing further direct mortgage bonds. Yet it was involved in a policy of exten-

---

[11] For brief study of the indenture securing collateral trust issues see Stetson, F. L., Some Legal Phases of Corporate Financing, Reorganization and Regulation, 57 (1917). For legal matters concerning the issue of collateral trust bonds, see Jones, L. A., Treatise on the Law of Pledges, Including Collateral Securities (1901). See also a very important decision, Watson v. C. R. I., etc., 169 App. Div. (N. Y.), 663 (1915). Also Machen, A. W., Modern Law of Corporations.

extensions and to effect consolidations.[12] Subsequently, after 1897, they appeared to some extent in the industrial field. Since 1906 their most extensive use has been in the financial plans of public utility holding companies. Here the financial structure has, in some cases, been so complicated that collateral trust bonds of one holding company are security for those of another. In one or two instances this process of pyramiding equities has been carried up several steps.[13]

Market

Reasons for Use.—Collateral trust bonds are now used by every type of corporation for a variety of purposes. The most reasonable—as it was historically the first—use for this class of bonds is to realize money from a multitude of small bond issues, no one of which is sufficiently large to command a wide market. A considerable variety of such small issues are put under one trust and a single large collateral trust bond is issued. The bonds of such an issue will command a wider investment market than those of the small issues.[g] In such cases holders

---

sion in the Northwest to maintain its strategic position. These extensions were accordingly financed through the issue to the parent company of direct mortgage bonds covering the new construction. These small issues were then made the basis of a collateral trust issue of bonds by the parent road.

[g] A good illustration taken from railroad finance was that of the Missouri Pacific First Collateral Mortgage 1920. Of these there were outstanding $9,636,000 secured by the deposit of the bonds mentioned below. None of these issues had an independent market, all being parts of the Missouri Pacific system. Should the bondholders of this issue be compelled —as was threatened at the time of the receivership of 1915—to foreclose their lien, take over these little bond issues, and subsequently the lines of road covered by the bonds, the properties obtained would have little value if operated independently of the whole railroad system into the structure of which they had been long since interwoven.

	Maturing	Miles Mortgaged	Principal Amounts
BONDS SECURED UPON MAIN LINE:			
Kansas City & Southwestern 6s	1926	27.00	$ 550,000
Kansas City & S. W. of Missouri 6s	1926	20.70	407,000
Council Grove, Osage City & Ottawa 6s	1920	69.53	1,110,000
Topeka, Salina & Western 6s	1923	51.73	1,273,000
Missouri Pacific Railway in Kansas 6s	1920	19.42	300,000
Council Grove, Smoky Valley & Western 6s	1917	27.30	417,000
		215.68	$ 4,057,000

---

[12] For an exhaustive study of the collateral trust bond in railway finance see Mitchell, T. W., "The Collateral Trust Mortgage in Railway Finance," 20 Q. J. E. 443 (1906). Also Ripley, W. Z., Railroads, Finance and Organization, 143 (1915), and Cleveland and Powell, Railroad Finance, 73 (1912).

[13] For further discussion with reference to holding companies, see Book IV.

of the collateral trust bonds have the full security of the bonds deposited and whatever additional value goes with a wider market. Distinctly the best form of a collateral trust bond of this description, from every point of view including that of the credit of the corporation, is that issued by the public utility holding company where the security is the first mortgage bonds —not stocks—of the subsidiary operating companies. Such bonds of small operating companies have an independent value and as such would strengthen rather than weaken the collateral trust bonds; yet the subsidiary bonds themselves, being in such small amounts, would attain only the narrowest market individually.[h] Nevertheless, the procedure in connection with collateral trust bonds of this sort amounts to financial legerdemain in which the corporation masses together a collection of securities which, if taken separately, would not be acceptable investments to the public. In other words, the money locked up in odds and ends can be withdrawn by the corporation through the issue of collateral trust bonds and used for other purposes.

BONDS SECURED UPON BRANCHES AND SCATTERED PROPERTIES:	Maturing	Miles Mortgaged	Principal Amounts
St. Louis Oak Hill & Carondelet 6s	1917	6.30	$ 400,000
Iron Mountain of Memphis 6s	1920	1.09	500,000
Fort Scott & Eastern 5s	1920	26.27	394,000
Fort Scott Belt Terminal 5s	1920	3.91	195,000
Fort Scott & Southern 5s	1920	53.07	383,000
Omaha Southern 5s	1922	25.44	382,000
Nebraska Southern 5s	1922	16.12	242,000
Kansas, Nebraska & Dakota 6s	1916	131.00	2,055,000
Grouse Creek 6s	1927	24.97	376,000
Pacific Railway in Nebraska 5s	1920	73.00	1,095,000
Interstate Railway 6s	1920	101.43	1,622,000
Joplin & Western 5s	1922	4.59	69,000
Rooks County R. R. 6s	1920	18.25	275,000
		485.44	$ 7,988,000
Total mileage and principal amounts		701.12	$12,045,000

[h] A good illustration of this kind of bond is the Collateral Trust 5 per cent Bonds of the American Public Utilities. These bonds are secured by the deposit with a trustee of an equal par value of the bonds of subsidiary, controlled companies. The bonds to be deposited must meet the following conditions:

1. At least one-half of the share capital of the subsidiary operating company must be controlled by the American Public Utilities Company.
2. The bonds deposited as collateral must be secured by a mortgage on all or substantially all of the property, and franchises of the subsidiary operating company.
3. The interest rate on the bonds deposited must be at least 5 per cent,

ter acquired

2.

The second reason for the issue of collateral trust bonds lies in the legal obstacles which so frequently prevent the use of simple and direct means of financing. Usually an old mortgage contains the after-acquired property clause so that each separate addition to the total corporate property must be financed through an independent corporation, else it automatically comes under the lien of the old mortgage. While small independent corporations cannot issue marketable securities alone they can, however, issue securities which, taken in the aggregate, become the security for a large collateral trust issue. Sometimes states (as Texas in the case of railroads) require a separate home-chartered corporation. This corporation has no independent credit, but its obligations may, with others, form the basis of a collateral trust bond issue. Sometimes subsidiary corporations possess valuable franchises or privileges which might be jeopardized if the main corporation should attempt to operate the property directly; in such cases the subsidiaries may obtain the money required by conveying their own securities to the parent company which, in its turn, pledges them as collateral for its own bonds.

[illegible] dam breaking

3.

A third explanation of the use of collateral trust bonds, rather less important but nevertheless common, is that of avoiding direct liability for damages. This reason is probably of most importance with businesses exposed continuously to the danger of suits by the public for personal or property damages. Strange and otherwise unaccountable subterfuges of corporate law and finance are resorted to in order to reduce to a minimum the chance of loss through such suits and the collateral trust bond is one of these devices. For illustration, a large, rich, and prosperous electric company operating in a city builds a hydro-electric development. The new dam causes the hitherto sluggish river to overflow and the company is confronted by damage suits from farmers. If the company owns the hydro-electric property in its own name the farmers can collect their damages from it directly. This responsibility may be evaded if the main company causes to be incorporated a separate hydro-electric company and places a mortgage on its property equal to its value. In the event of successful suits the farmers can only throw the smaller corporation into the hands of receivers and in the subsequent reorganization they can obtain no satisfaction, as the foreclosure of the mortgage will exhaust the property of the hydro-electric company. But the bonds issued under such a mortgage would have little market value, because the bondholders, if forced to foreclose on the power station would have no market for their electricity. Accordingly the main company deposits them as collateral with a trustee and upon their security it issues its own collateral trust bonds.

3 — 7

1- Sepa
2- Conne
3- owned.

Types of Collateral Required.—The kind of collateral deposited as security for collateral trust bonds may be divided roughly into three classes according to the economic significance of this collateral in the event of the foreclosure. In very rare cases the securities deposited possess an independent and entirely free market, a market in no wise subject to the vicissitudes of fortune of the issuing corporation. Such a collateral trust bond is that of the Adams Express Company's 4s, 1948, secured by the deposit of over a quarter of its own issue and large blocks of 51 different railroad bonds. All of these bonds, practically without exception, are listed on the New York Stock Exchange, and no one of them, except in an indirect and slight degree, is dependent on the earnings of the express business. A similar, perhaps stronger although not so greatly diversified, list of collateral is that securing the Union Pacific Railroad's 10-year notes, due 1928. The note issue was for \$20,000,000 to secure which the Union Pacific Railroad pledged \$30,000,000 par value of the underlying or guaranteed bonds of six of our strongest railroads.[1]

---

[1] The security behind the Adams Express Company Collateral Trust 4s is given in detail in Poor's "Manual of Industrials," under the "Adams Express Company."

\$2,000,000	Chicago & Northwestern General 4s of 1987.
\$2,500,000	Chicago & Northwestern General 5s of 1987.
\$3,000,000	New York Central Refunding & Improvement 4½s of 2013.
\$1,000,000	Pennsylvania Railroad Consolidated 4½s of 1960.
\$2,500,000	Pennsylvania Railroad General 4½s of 1965.

A second group of collateral trust bonds consists of those secured by a deposit of securities of corporations which are allied to the issuing corporation but which may be operated independently. Admitting a probable sacrifice of values the securities of these companies could be marketed through wholesale bankers, although this would take time and would, almost surely, involve the holders in at least a temporary loss. Such a bond is the Collateral Trust 4s of the American Telephone and Telegraph Company. The securities behind these bonds are the stocks of subsidiary Bell telephone companies all interrelated with each other and the parent company, but yet capable of having an independent existence. While a failure of the parent company, involving a default on the collateral trust bonds, would seriously cripple the subsidiary companies, it would not render their stocks valueless and unmarketable. Each one of the subsidiaries could be financed independently of the parent and the great majority of their stocks have open and easily ascertained market values.[j] In case of a default, therefore, the collateral could be sold at such prices as would cause little if any loss to the holders of the bonds.

A great variety of collateral trust bonds coming within this class are yearly pressed for market among bond buyers. Great care should be exercised by the issuing company to safeguard the corporation's credit among investors and even greater care must be exercised by the investors themselves to safeguard their

---

$6,000,000 Southern Pacific Refunding 4s of 1955.
$4,000,000 Baltimore & Ohio Refunding 5s of 1995.
$5,000,000 Illinois Central—Chicago, St. Louis & New Orleans Joint 1st & Refunding 5s of 1963.
$4,000,000 Denver Union Terminal 1st 4½s of 1964. (Guaranteed by Union Pacific, Chicago, Burlington & Quincy and Atchison Railroads.)

The market value of these pledged bonds in June, 1918, at the time the Union Pacific Railroad issued the notes was over $25,000,000.

[j] There are a great many collateral trust bonds of public utility companies that would come under this category, as, for example, the American Public Utilities Company Collateral Trust 5s mentioned in note (h) above. This bond is secured by the deposit of an equal amount, par value, of the bonds of subsidiary companies, located in Michigan, Indiana, Minnesota, Wisconsin, each having an independent earning capacity in excess of the interest on the deposited bonds; such bonds, therefore, could be sold on the open market or foreclosed and the properties themselves reorganized.

interests. The collateral deposited should consist of many different parcels covering properties that can be independently operated. In addition great care should be exercised to ascertain that each parcel of collateral gives control of the subsidiary enterprise, so that if the trustee is compelled to bid in the collateral at a foreclosure sale, the bondholders will be possessed of the absolute control of fundamental property. This is particularly important if the collateral is represented by a bare majority of a single issue of stock. In that case the agreement under which the bonds are issued should provide that if the total outstanding stock of the corporation be increased, sufficient new stock should be acquired and deposited under the trust so that the collateral would at all times insure a control. This is exactly what is provided in the agreement covering the Atlantic Coast Line's (Louisville and Nashville) Collateral Trust 4 per cent Bonds.

Closely related to this class, yet different from it, are the collateral trust bonds of one enterprise issued to secure control of an independent but allied corporation. Such issues are very common in railroad finance. These great railroad collateral trust bond issues are a sort of combination of the first and second classes mentioned in the above discussion. They owe their existence, in almost every case, to strategic rather than financial exigencies. Such are the Collateral Trust Bonds of the Atlantic Coast Line secured by the deposit of a majority of the Louisville and Nashville Railroad stock. These collateral trust bonds, owing their existence to strategic reasons alone, frequently become of little value, because of some shift of railway policy. If the underlying stock becomes of no intrinsic value, independent of the corporation issuing the bond, the bonds themselves also become of little value. In extreme cases, weight of the collateral trust bonds may bring disaster to the company issuing them. The Collateral Trust Bonds of the Toledo, St. Louis and Western Railroad, secured by Chicago and Alton stock, were directly instrumental in causing the receivership of the former corporation in 1914; those of the

St. Louis and San Francisco Railroad, secured by Chicago and Eastern Illinois stocks contributed in no small measure to the disaster of the former road.[14]

In the third type of collateral trust bonds the security deposited covers the same enterprise as the bond itself. That is, the collateral has little or no independent value. Such cases, which are very common, are illustrated by the numerous instances in which a company wishes to give stocks of its own the glamor of a bond and so deposits them as the collateral for a collateral trust bond. The most conspicuous case of such financial sleight of hand was that of the Chicago, Rock Island and Pacific Railroad bonds, secured only by the stock of the Railway, the operating company. On foreclosure the bondholders found that their bonds were such only in name, their real security being stock encumbered by a host of prior lien bonds. Collateral trust bonds of this character are bonds only in name. One of the most interesting abortions of the collateral trust bond was the so-called Refunding Notes of the Cincinnati, Hamilton and Dayton, issued in 1904, and secured, in large part, by the practically worthless stocks of the bankrupt Pere Marquette and an unimportant subsidiary. Obviously, collateral trust bonds of this character are actually not different from the stock deposited to secure them, nor are they of more substantial security—in fact they may be weaker because devoid of the voting privilege and the inhibiting power of the stockholder to restrain the issue of prior lien debt and the exploitation of their assets by unprofitable contracts,[k] and the disintegration of the property.[l]

---

[k] Such a case of exploitation of a subsidiary by a parent company, involving the sacrifice of the interests of the collateral trust bondholders, is that of the Chicago and Eastern Illinois. The common and preferred stocks of this road were acquired by the St. Louis and San Francisco Railroad and deposited as collateral for certain bonds. The St. Louis and San Francisco also controlled the St. Louis, Memphis and Southeastern. It then forced the Chicago and Eastern Illinois into an unprofitable contract with the latter subsidiary, as a result of which, among other things, the earnings of the Chicago and Eastern Illinois were so low as to indicate little or no value for the collateral trust bonds secured only by its stock.

[l] It is important that the holders of collateral trust bonds be assured

---

[14] For further discussion, see Book IV, Chapter IV.

Should the trustee under a collateral trust bond, secured only by stock, be compelled, finally, to bid in the deposited securities, the old bondholders would probably find themselves possessed of stock in itself unsalable and involving them in further investments of money in order to give it value. This was exactly what happened when the holders of the Rock Island Railroad Collateral Trust Bonds, previously mentioned, acquired possession of the railway stock. It should be remembered, in every case of this character, that had the enterprise covered by the securities been itself of value, the managers of the company would never have permitted the default on the collateral bonds. We may therefore presume that the collateral bondholders will not be allowed to secure possession of their collateral until, for one reason or another, it has become of little value.

Danger of Misconstruction.—It is bad judgment on the part of bankers and corporation officials and moreover, a species of deceit to call collateral trust bonds by another name. Especially is this true when they are called first mortgage bonds. For example, the corporation resulting from a long series of reorganizations of the original whiskey distilling "trust" issued a series of bonds known as the "Distillers' Securities Corporation First Mortgage Twenty-five Year, 5 per cent Convertible Gold Bonds." These bonds were not first mortgage on physical property, but were secured merely by a deposit of certain stocks. While there may be a semblance of excuse where the collateral is itself a first mortgage on physical property, one may assume that the word "mortgage" is used in such cases for the purpose of evasion. Accepted usage long ago established the presumption that

---

of the proper upkeep of the actual physical property behind the collateral securities. Thus the agreement covering the Atlantic Coast Line's (Louisville and Nashville) Collateral First 4s provides that the Atlantic Coast Line will "cause all repairs, renewals and replacements necessary to maintain the railroads, structures, locomotives, cars and other equipment, tools and other property of the Louisville and Nashville Company in their present good order and condition to be made out of the earnings."

whenever the term "mortgage" is used it means a direct lien on specific, physical property. For similar reasons the terms "collateral mortgage," "mortgage collateral," or even "first lien" bonds,[m] without the designation "collateral trust" should not be used as titles for bond issues secured by collateral alone, because such terms are evasive and tend to confuse the investor. On the other hand, it should be remembered that some collateral trust bonds are stronger than that name implies, being secured not only by the deposit of collateral but also by a direct mortgage as well. Thus, the New York Central and Hudson River, Lake Shore Collateral Trust 3½s are now, by the implications of the consolidation of December, 1914, a second mortgage on the New York Central's east-of-Buffalo lines, and a third mortgage on the west-of-Buffalo lines.

It has been said that collateral trust bonds are analogous to collateral loans from banks.[n] But this analogy is more apparent than real. It is true that in both cases the security behind the loan is of the same nature but the conditions of issue are fundamentally different. In the case of a collateral loan from a bank, the loan is of short duration and secured by collateral with a current open-market value by which the bank is able to check constantly the value of the security. Collateral trust bonds, on the contrary, invariably run for some years, frequently for long periods—as the American Gas and Electric

---

[m] The bonds of the Southwestern Power and Light Company are called "first lien," whereas they are "secured by a first lien on all the property now owned by nine subsidiary companies, through deposit with Trustee of the entire capital stocks of and all the bonds of these companies." N. W. Halsey and Company circular, November, 1915.

[n] "As to the security back of this note issue, we shall attempt to picture it to you by a simple parallel.

"If you go to your own bank and pledge $2,000 of excellent collateral as security for a $1,000 loan—if you show them the title to a parcel of unencumbered real estate worth about $3,000 and agree as a consideration for the loan not to mortgage it until your loan is paid—if finally you get one of the richest men in your community to endorse your note, and pay interest at the rate of 7 per cent per annum, the security of the bank will closely approximate the security of the holder of one of the Collateral Trust Notes here offered." Circular letter, dated August 13, 1913, of E. H. Rollins & Sons, describing an issue of $4,000,000 Huntington Land and Improvement Company's Collateral Trust Bonds.

Collateral Trust Bonds of 1907, due 2007—and the value of the collateral may diminish greatly before the bonds are due. Ordinarily in such cases the trustee of the bondholders cannot compel the substitution of more valuable collateral to maintain the original equity. Thus, when the Adams Express Company's Collateral Trust Bonds 4s of 1948 were issued in 1898, over $13,000,000 par value of high-grade bonds was pledged as collateral behind the issue of $12,000,000 of bonds. The collateral pledged was certainly worth $12,000,000 and tended to appreciate in value during the next four years. But after 1906, the collateral declined steadily in value, and by January 1, 1918, it was worth approximately $8,883,000. This is one of the few issues where the collateral is subject to an entirely independent market not affected by the vicissitudes of the issuing corporation.

It is a species of deceit to represent to the investing public that the real value of a large issue of collateral trust bonds can be gauged by the market quotations of the collateral at the time of the issue of the bonds. The market quotation is always for one or two bonds and never for an entire issue; and if the collateral trust bondholders or their trustee should try to sell the large mass of collateral deposited as security the open market, as registered by a few transactions, would vanish entirely. Objectionable also is the practice of bankers in representing the value of collateral by its par value as if this were a matter of concern should the bondholders be compelled to acquire the collateral through a default in the interest payment on the bonds. Even though collateral deposited as security for bonds continues to pay interest or dividends, it may have a low market value and a low intrinsic value, as evidenced by the earnings of the actual property it represents.[o]

---

[o] This is illustrated by certain of the Collateral Trust Bonds of the Electrical Securities Corporation, an offspring of the General Electric Company, which owns its common stock. From time to time the Securities Corporation has issued collateral trust bonds, based on the deposit of the bonds of electric enterprises many of them enterprises in the course of construction. The credit of the company is high which has enabled it to

Short-Term Notes.—Secured ~~short-term notes are usually~~ merely short-term collateral trust bonds ~~which owe~~ their existence to the demands of temporary financing. They are a kind of emergency security and the banker who sells this kind of bond usually insists that the corporation shall pledge specific property as security for the payment, unless the corporation is free from underlying obligations and can agree not to mortgage any of its assets during the life of the notes—as in the case of certain note issues of the United Fruit Company. When specific securities are pledged, it is common to insist that the fundamental value of the collateral pledged be not impaired by the unrestrained issue of underlying securities.[p] And even more important is it to be certain that the actual property, whatsoever its nature, behind the securities pledged shall not be destroyed wantonly by those who control the enterprise.

The security pledged by the corporation is frequently a

---

sell its collateral bonds above what the value of the deposited collateral would warrant. Thus the Fourteenth Series had a par value of $1,000,000 and was secured by $1,250,000 par value of other bonds. But the actual market value was less, at the time of issue, February, 1916, than the face value of the bonds issued. This is shown by a summary statement of the collateral deposited. (The quotations were the current "street" quotations, among specialists in public utility bonds.)

Par Value of Bonds	Corporation	Bond and Maturity	Approx. Market Price	Market Value
$125,000	Appalachian Power	1st 5s 1941	70	$ 87,500
250,000	Colorado Power	1st 5s 1953	88	220,000
115,000	Consolidated Power & Light Co.	Ref. 5s 1929	75	86,250
250,000	Fort Wayne & Northwestern	1st 5s 1943	80	200,000
100,000	Mesaba Railway	1st 5s 1932	82	82,000
200,000	Mississippi River Power	1st 5s 1951	80	160,000
75,000	Washington, Baltimore & Annapolis	1st 5s 1941	86	64,500
135,000	Yadkin River Power	1st 5s 1941	71	96,000
				$996,250

Even at the quotations given, which represented the current traders' prices for a few bonds, the market would have vanished had blocks of the size included under the collateral trust issue been pressed for sale without artificial support.

[p] The Five-Year Collateral Trust Notes of the United States Public Service Company, due 1918, were issued under the provision that none of the subsidiaries whose securities were collateral for the notes, could issue additional securities or incur floating debt, except for operating expenses, unless the new securities or notes should be straightway deposited as additional collateral.

mass of odds and ends that happen to be in its treasury.[q] Although sometimes this collateral consists of first mortgage bonds of a high order, which for one reason or another it is inexpedient to sell at the time the notes are marketed, the collateral deposited as security is usually of inferior character. As the notes mature quickly the investor does not require collateral of such permanently valuable nature, as in the case

---

[q] The collateral used by the New York, New Haven and Hartford Railroad is an illustration of the heterogeneous mass of securities sometimes pledged. The following is a list of that securing the 5 per cent notes due May 1, 1915:

	Number of Shares or Par Value	Book Value
STOCKS		
Central New England Railway Co.		
Common Stock	47,920	$ 868,566.55
Preferred Stock	37,360	1,052,335.91
Hartford & Conn. Western R. R. Co.	17,482	1,201,063.69
New York, Ontario & Western Ry. Co.		
Common Stock	291,600	13,105,185.62
Preferred Stock	22	3,212.00
Rutland Railroad Co.	23,520½	2,364,977.15
American Telephone & Telegraph Co.	314	37,782.56
Concord & Montreal R. R.	2,469	395,765.70
Connecticut & Passumpsic Rivers R. R. Co.	1,464	208,162.44
Northern R. R. (of New Hampshire)	922	130,750.27
Pennsylvania Railroad Co.	1,168	71,907.64
The Rhode Island Co.	96,855	24.352,336.41
Waterbury Gas Light Co.	8,374	847,971.88
BONDS		
American Telephone & Telegraph Co.		
4½% Gold Bonds, due 1933	6,300	6,290 55
Chicago, Burlington & Quincy R. R. Co. (Ill. Div.)		
3½% Bonds, due 1949	10,000	9,150.00
Chicago & Eastern Illinois R. R. Co.		
5% Bonds, due 1937	22,000	25,300.00
Chicago, Rock Island & Pacific R. R. Co.		
4% General Mortgage Bonds, due 1988	38,000	38,000.00
New York, Westchester & Boston Ry. Co.		
4½% First Mortgage Gold Bonds, due 1946	2,000,000	2,000,000.00
New York and Stamford Railway Co.		
4% First and Refunding Mortgage Gold Bonds	678,000	599,880.00
The Vermont Company		
5% First Mortgage Gold Bonds, due 1931	846,000	846,500.00
Central New England Railway Co.		
4% First Mortgage Gold Bonds	85,000	88,502.50
New York, Providence & Boston R. R. Co.		
4% General Mortgage Bonds, due April 1, 1942	247,000	247,000.00
The New York, New Haven & Hartford R. R. Co.		
6% Convertible Debenture Certificates, due Jan. 15, 1948	600,800	600,800 00
3½% Non-Convertible Debenture Certificates, due April 1, 1954	2,100	2,100 00
3½% Convertible Debenture Certificates, due Jan. 1, 1956	852,100	852,100 00
3½% Non-Convertible Debenture Certificates, due March 1, 1947	9,000	9,000.00
Providence Securities Co.		
4% Fifty-Year Gold Debentures, due May 1, 1957	719,000	719,000 00
NOTES		
Housatonic Power Co.	......	1,150,000.00
New York & Stamford Railway Co.	......	185,000.00
The Connecticut Co.	......	1,325,000.00
The Rhode Island Co.	......	1,725,000.00
Central New England Railway Co.	......	200,000.00
The Harlem River & Port Chester R. R. Co.		3.000,000 00
Hartford & Conn. Western R. R. Co.	......	819,781.71
Rutland Railroad Co.	......	150,000.00

of the ordinary collateral trust bond just described. On the other hand, bankers and investors are inclined, and rightly so, to look upon notes of two to five years' maturity as closely resembling current liabilities and require of the corporation corresponding means of protection. Often limitations are placed on the amount of current loans the corporation may issue without breach of the note agreement. In rare cases the bankers who undertake to sell short-term notes may even require the corporation to limit the dividends or otherwise increase the equity behind the notes by diverting net earnings to the upbuilding of the plant. An extreme case of this character is that of the Chesapeake and Ohio Railway Company. The road, sorely in need of money to pay for capital improvements, with low credit for its general bonds, authorized $40,000,000 5 per cent Five-Year Notes in 1914. Besides being secured by a specific pledge of $41,270,000 Improvement Mortgage Bonds, the railroad agreed to set aside out of earnings, $2,000,000 for the first year, $3,000,000 for the second year and $4,000,000 for each of the three remaining years during the life of the notes. These sums were to be used solely for capital expenditures, and no dividends were to be paid except from earnings in excess of these reservations.

CHAPTER VI

BONDS SECURED BY CREDIT

Nature of Straight Credit Bonds.—The bonds first issued by the railroads in England and the United States were based on the general credit of the issuing corporation. Specific security in the form of a mortgage lien developed later; it may be said that in England mortgage bonds are relatively rare even now. Bonds issued on the general credit rest, as all other corporate securities ultimately rest, on the earning capacity of the corporation. The only merit of a mortgage security lies, at the last analysis, in the preference it gives over other creditors; in other words, the mortgage feature of a bond is of value in the relatively superior position it gives the holder of the bonds, if it ever becomes necessary to distribute the assets of the bankrupt corporation. So long as the earnings are adequate, it is a matter of legal distinction only, whether the bond is covered by a lien on specific property or merely by the promise of the corporation to pay.

Bonds, the security of which rests primarily or entirely upon the general credit rather than upon a lien on specific property of a corporation, may be divided roughly into seven classes.[1] These seven classes include receivers' certificates; assumed, guaranteed, and joint bonds; debentures; income and participating bonds. As diversification in the character of bonded debt has been carried furthest in the field of railroad finance, most of the distinctions to be drawn can best be illustrated by railroad bonds. This is not implying, however, that parallel cases may not be found in other fields.

Receivers' Certificates.—In a special and in a true sense the fundamental type of all straight credit obligations is that issued by corporate receivers. When a railroad or public utility corporation or even a manufacturing company passes into the control of the court, following threatened or actual default on its obligations, the court sometimes authorizes its agents or receivers to obtain money by issuing short-term notes. Such notes are known as "receivers' certificates."[2] They are the obligations of the court—not debts of the company—which carry the implied assurance that the court will charge the property of the company in its hands with the payment of its certificates.[a]

---

[1] The outline of these classes has been given already in the opening pages of the previous chapter.

Resting in a sense on both the physical property and the general credit they represent a transitional form of securities between those discussed in the previous chapter and those described here. They depend for their strength chiefly, however, on the inclination of the court under whose authority they are issued, to enforce the final payment of interest and principal. As authorized under the social sanctions protecting the judiciary they bear a resemblance to civil loans, yet they must be satisfied, ultimately, by the property of the financially embarrassed corporation. In this, however, the court will permit them to take precedence over certain or all of the mortgages of the old corporation, and sometimes even over all of its obligations except taxes and claims for current wages and supplies. As they are issued to meet temporary financing, receivers' certificates are of short maturity and are usually

---

[a] In the words of one of the old cases which have been frequently quoted: "A receiver's certificate is evidence in the hands of the holder that he is entitled to receive from the funds under the control of the court, that authorized its officers to issue them, the amount specified if the fund is sufficient to pay holders of such certificates, or if it is not sufficient, then only a pro rata with other holders.[3] The certificates are not debts of the company (which is in the hands of the receiver), but of the receiver backed by the pledged faith of the court that the property, or the proceeds of which they are charged, is in its possession subject to be and that it will be disposed of by it for the payment of them."[4]

---

[2] For discussion of the conditions of issue see Book V, Chapter V. For legal discussions see Carr, W. A., "Receivers' Certificates," 1 Penn. Law Series, 593 (1895); Hardy, C. A., "The Power of a Court of Equity to Authorize the Issue of Receivers' Certificates," 44 Cent. Law Jour. 344 (1897); Machen, A. W., Jr., Modern Law of Corporations.

[3] Turner v. Railway (1880), 95 Ill. 134, at 145.

[4] Myer v. Johnson, 53 Ala. 237, 349 (1875).

paid off or refunded before the property of the company passes out of the jurisdiction of the court. Owing, however, to the frequent difficulty which the receiver experiences in obtaining new money the payment of receiver certificates is quite often delayed beyond their date of maturity.[b] At all events the courts will not permit the reorganized railway corporation to assume the management of the property until the receivers' certificates are in some way provided for.[7] Owing, however, to their short maturity and their anomalous nature they are not favorably regarded by investors in general.

Generally, receivers' certificates are ultimately paid off with money at the time the court releases its control over the property against which the certificates are issued, so that the holders are not asked to participate in the succeeding reorganization. In rare cases efforts are made to force them to take new securities; thus in the Atlanta, Birmingham and Atlantic Railroad's reorganization plan of March 21, 1914, it was sought to induce the holders of $5,000,000 receivers' certificates to accept 40

---

[b] Ripley remarks that in a railroad reorganization "owners of receivers' certificates occupy an impregnable position."[5] This is true theoretically, but the unfortunate Atlanta, Birmingham and Atlantic, and the Pittsburgh, Shawmut and Northern cases show how little in financial structures is impregnable.

An investigation of railroad and traction reorganizations from 1910 to 1925 was undertaken to ascertain the relative frequency with which, in a random selection of large well known reorganizations, receivers' certificates were not paid in full at maturity. The results were surprising.[6] The statistics cover both separate receiverships, and separate issues of certificates including several for a single receivership.

	Railroad Receiverships Considered	Traction Receiverships
TOTALS:		
Number of Roads	17	7
Number of Issues	43	8
Amounts	$62,100,000	$25,700,000
CERTIFICATES PAID IN FULL AT TIME OF MATURITY:		
Number of Issues	20	4
Amounts in Dollars	$30,210,000	$ 5 500,000
Percentage of Number	46%	50%
NUMBER DEFAULTED OR DELAYED IN PAYMENT:		
Number of Issues	23	4
Amount in Dollars	$31,900,000	$20,200,000
Percentage of Number	54%	50%

---

[5] Ripley, W. Z., Railroads, Finance and Organization, 389 (1915).

[6] Hale, E. P., Receivers' Certificates, Harvard Graduate School of Business Administration (1926).

[7] See especially Swan v. Clark, 110 U. S. 602.

per cent of their claim in new first and general mortgage thirty-year bonds, at 90 per cent par value, and the other 60 per cent in cash. In the final reorganization plan of the same company the holders of receivers' certificates were forced to accept income bonds of subordinate and meager value. This case is extreme in the sacrifice forced on the holders of receivers' certificates among railroads. Considering traction reorganizations it is by no means uncommon to require sacrifice or even an assessment from the holders of receivers' certificates.

Assumed Bonds.—Aside from the obligations of the court, which imply a kind of quasi-public credit, the strongest kind of "general credit" bonds are those issued directly by a small subsidiary corporation, all the assets of which are merged in the property of a larger and successful company. Such bonds are said to be assumed by the larger corporation. At the time of the merger the larger corporation may formally agree to be responsible for the subsidiary bonds, exactly as if they represented its own obligations. Yet this is not necessary. If the purchasing corporation acquires the physical property of the smaller corporation, which passes out of a legal existence, then the purchasing corporation automatically assumes the responsibility for the bonds of the previously existing smaller corporation. Assumed bonds are, in effect, a double obligation secured, first by a direct lien on specific property or property rights, and secondly by the specific or implied pledge of the general credit of the corporation which has acquired the property covered by the direct lien.[c]

Assumed bonds are exceedingly common in the field of

---

[c] Writers on corporation finance differ as to whether the term "assumed bonds" refers to a broad class of "issues the liability for the interest and principal of which has been assumed by a concern other than the original obligor,"[8] or to a more restricted class. Under the latter understanding an assumed bond has been defined as "strictly an obligation of a subsidiary corporation whose stock or property has been acquired and is possessed by the main company."[9]

---

[8] Sakolski, A. M., Principles of Investment, 75 (1925).
[9] Wood, W. A., Modern Business Corporations, 127.

American railroads.[d] There is probably no railway system of considerable size which has not a variety of assumed bonds each one of which has had a different origin, a relic of some long-forgotten episode in the railroad's history. Generally these assumed bonds arise through reorganization or consolidation. The Erie Railroad, as we know it today, has been through three comprehensive reorganizations, yet there remain in existence and outstanding in the hands of the public some of the original first mortgage bonds, issued by the first road in 1847. At each succeeding reorganization these bonds have been assumed by the new corporation that was created to acquire the property of the old. When an ancient, previously reorganized road fails a second time, the receivers are usually very careful to continue the interest on the old assumed bonds inherited from the previous reorganization, as these are quite likely to be specifically secured on the oldest and probably most valuable part of the system.[e]

---

[d] Holmes[10] made a careful statistical study of all the assumed bonds of our American railroads that matured after January 1, 1923. He found 394 issues of a principal amount in excess of $100,000. Some of the larger systems had the following number of issues:

Atlantic Coast Line	15
Chicago & Northwestern	7
Erie	11
Louisville & Nashville	10
Missouri Pacific	70
New York Central	35
New York, New Haven & Hartford	29
Pennsylvania	45
Seaboard Air Line	13
Wabash	10

[e] This is true of the New York and Erie First Mortgage 4 per cent Bonds issued in 1847, alluded to above. They cover the main stem of the Erie road from Piedmont to Dunkirk. The security of this kind of assumed bonds is illustrated by some of the current reorganizations. During the receivership of the Missouri Pacific Railway, the old Pacific Railroad of Missouri First Mortgage 4 per cent Bonds, issued in 1868, and covering the central trunk of the system, were sold at an average of 93, or on a less than 4½ per cent basis. The Wheeling and Lake Erie Railroad passed into the hands of receivers June, 1908, and remained bankrupt for over eight years. The Railroad was incorporated in 1899 as a result of the reorganization of the Wheeling and Lake Erie Railway. But during all the receivership the interest on the old Wheeling and Lake Erie Railway First Mortgage 5 per cent Bonds, which were assumed by the Railroad in 1899, was regularly paid. Except for the months following the opening of the

---

[10] Holmes, M. L., Assumed Bonds, Harvard Graduate School of Business Administration (1923).

More usual even than bonds assumed under reorganization are those assumed through consolidation.[f] A small main line railroad property with one or more issues of mortgage bonds on its line, is acquired by a larger railroad system. These bonds may be called and paid off by the larger corporation, but more frequently they are not callable and, when it is known that the road is seeking to buy in the bonds, the holders will ask a prohibitive price. It is therefore more economical to allow them to run to maturity. Such bonds therefore remain secured, not only by the original property, but also by the general credit of the large corporation. In some cases, these assumed bonds bear on their faces the obligation both of the original small corporation and of the large corporation as well. In other cases, they appear at first sight to be merely the obligation of the original small corporation and it is only through an examination of the subsequent history that one learns that the bond issue of some insignificant stretch of line with an unfamiliar name has been assumed by a large railroad and is an investment security of unquestioned merit. Very often the little road ceases to exist as a separate corporate entity and all that remains as a reminder of its one time existence is the outstanding bond issue. A study of 394 assumed

---

European War these bonds were quoted above par. A similar situation existed for the old assumed 6 per cent bonds of the St. Louis and San Francisco Railway. Their interest was paid uninterruptedly and at the beginning of 1916, sold for 110 per cent, although the Railroad which assumed them at the reorganization of the Railway in 1896 had been in the hands of receivers since May, 1913. Similar illustrations may be drawn from the assumed bonds of the Rock Island, the Missouri Pacific, and Missouri, Kansas and Texas railroads, all in the hands of receivers during the early part of the European War.

[f] It should not be understood from these paragraphs that assumed bonds are restricted to the field of railroad finance. While such a predominating number of existent assumed bonds cover railroad property that it is usual to confine discussions of assumed bonds to the railroad field, still they exist elsewhere, especially in the traction field where their historical significance is similar to that of railroad assumed bonds. Thus the Lorain and Cleveland Railway First 5s of 1927 were assumed by the Lake Shore Electric Railway Company and the Augusta-Aiken Railway and Electric Corporation. In the industrial field the Sen-Sen Chiclet Company 1st 6s of 1920 were assumed by the American Chicle Company and the Pennsylvania-Maryland Steel Company 1st 5s of 1937 were assumed by the Bethlehem Steel Company.

bonds of American railroads shows that the vast majority are bonds of companies which have ceased to exist.[11]

The old underlying bonds of the Atlantic Coast Line furnish an illustration. This is one of the few large systems which have grown steadily without receivership or reorganization. As a result there are 17 small issues of assumed bonds, of which $4,000,000 is the largest and two of them less than $100,000. The little Richmond and Petersburg Railroad, 26 miles long, was the nucleus from which the whole system grew. And there still remains a little issue of $300,000 on this stem, a relic of the remote past.

Investment Yield of Assumed Bonds.—The relative investment yield of assumed bonds, particularly those of railroads, is a question of which there is considerable uncertainty. As they represent a kind of dual security their value as investments is the resultant of the security of their original lien on the property of the little road and that of the implied warranty of the large road which has assumed them. They are a lien on property covered by the original mortgage and backed by the general credit of the assuming corporation. The latter is shared by other bond issues. The simplest method of ascertaining the investment value of this dual security is to compare the yield of the small assumed bond issue with that of the great overlying first mortgage bonds of the whole system. This comparison is complicated by the simple fact that the property covered by the assumed bonds varies in importance for the system as a whole—that is, some of the assumed bonds cover sections of important main line trackage, others only unimportant branch lines.[g] The investment significance of the implied warranty of the main line assumed bond is exactly the same as that of the branch line assumed bond, but

---

[g] Holmes found that 81 per cent of all the assumed bonds on American railroads covered main line trackage.[12]

---

[11] Holmes, *op. cit.*
[12] *Op. cit.*

the investment value of the underlying lien on the specific trackage is very different indeed.

An exhaustive study was undertaken to compare assumed bonds with the over-lying first mortgage bonds covering the whole system.[13] Only those assumed bonds were used in the comparison which clearly underlay large general first mortgage issues, so that a fair comparison was possible. One hundred and fifty assumed bonds were available under this condition and they were included within the financial structure of 28 railroads. The list embraced roads with weak as well as strong general credit and the roads were distributed all over the country. In addition to a comparison of the average yield for assumed bonds and general first mortgage bonds on the same system, an attempt was made to differentiate between main line and branch line assumed bonds. The debt per mile of line was also computed for each bond and compared so as to determine whether or not the apparent security affected the relative yield.

As a result of the study it was found that, in general, the assumed bonds had a higher yield to the investor than the great general first mortgage issue junior to the assumed bonds. This was true notwithstanding the fact that debt per mile of line was lower for the assumed bonds than the general first mortgage bonds.[h]

---

[h] The following table of Holmes[14] expresses the whole relationship:

COMPARISON OF ASSUMED WITH OVERLYING ISSUES
ASSUMED—MAIN LINE

	No. of Issues of Assumed Bonds
ASSUMED BONDS HAVING HIGHER YIELD THAN GENERAL OVERLYING BONDS:	
Amount per mile higher for assumed issue	25
Amount per mile lower for assumed issue	41
Amount per mile equal	4
No comparison possible	1
Total higher yield	71
ASSUMED BONDS HAVING LOWER YIELD THAN GENERAL OVERLYING BONDS:	
Amount per mile higher for assumed bonds	20
Amount per mile lower for assumed bonds	26
Total lower yield	46

---

[13] Holmes, *Op. cit.*
[14] *Op. cit.*

Of 122 main line assumed bonds, 71 separate issues, or about 63 per cent, were selling to yield the investor a higher return and yet were outstanding at lower amounts per mile of line, than the amounts per mile of line at which the first mortgage general issues were outstanding. Clearly the investment appraisal of assumed bonds is lower than it should be in the light of the position of the general well-known issues. Or, from another point of view, investors give an undue weight to the familiar and ready marketable securities in their selection of high-grade railroad bonds.

Guaranteed Bonds.—Guaranteed bonds are distinctly different from assumed bonds. They imply a double obligation, that of the issuing corporation and that of the guaranteeing corporation. This guarantee may arise as a direct contract obligation of the guarantor, and be endorsed as such on the bond itself.[i] This is the common form.[j] Or it may arise

---

EQUAL YIELD;				
Amount per mile higher	1			
Amount per mile lower	4			
Total equal yield		5		
TOTAL ASSUMED—MAIN LINE			122	
ASSUMED—BRANCH				
ASSUMED BONDS HAVING HIGHER YIELD THAN GENERAL OVERLYING BONDS:				
Amount per mile higher	8			
Amount per mile lower	17			
Total higher yield		25		
ASSUMED BONDS HAVING LOWER YIELD THAN GENERAL OVERLYING BONDS:				
Amount per mile higher	3			
Amount per mile lower	0			
Total lower yield		3		
TOTAL ASSUMED—BRANCH			28	
TOTAL ASSUMED				150

[i] For illustration, the guarantee by the Southern Pacific Company of the bonds of the Houston, East and West Texas Railway, a typical form, reads as follows: "For value received, the Southern Pacific Company hereby guarantees unconditionally the punctual payment of the principal and interest at the time and in the manner therein specified." Other reference to this case see Book I, Chapter IV, note (w).

[j] In a study of 179 miscellaneous guaranteed bonds, as of December 1925, Volkeming[15] found that of 114 railway bonds 66, or about 60 per cent, bore the endorsement of the guarantor.

---

[15] Volkeming, R., Guaranteed Bonds, Harvard Graduate School of Business Administration (1926).

indirectly through some indirect or supplemental contract, no evidence of which appears on the face of the bond. The contract may perhaps be mentioned only incidentally in the mortgage or deed of trust under which the bonds were issued. The commonest form of such indirect guarantee is that of the lease.[k] A large corporation enters into a contract of lease with a smaller corporation, agreeing to pay to the latter a certain sum of money each year for a definite period of time. This sum may be just equal to the interest on the bonds and the necessary corporate taxes and expenses of the smaller corporation,[l] or it may represent a sum sufficient to pay interest on the subsidiary company's bonds and something on its stock.[m] The guarantee may be of both interest and principal —the commonest form[n]—or interest alone,[o] or of principal only. This latter is rare, but cases exist.[p] There are instances

---

[k] Volkeming[16] found that 10 of his list of 114 guaranteed railroad bonds were guaranteed through the terms of a lease, although the bond itself bore no specific pledge.

[l] A good illustration of such a case is that of the bonds of the Georgia Midland Railway, a road leased by the Southern Railway. It has outstanding First Mortgage 3 per cent Bonds. All its stock is owned by the Southern Railway. The latter has leased the Georgia Midland for $52,000 a year, which sum is just sufficient to pay the interest on its bonds and leave $2,500 for its corporate expenses. To show the indirect character of this guarantee it is noticeable that no mention whatever is made in the bond itself of the obligation of the Southern Railway, and only once in the Deed of Trust itself is the existence of the lease mentioned, and then only incidentally.

[m] Thus in the lease of the Beech Creek branch of the New York Central and Hudson River Railroad the latter not only guarantees 4 per cent interest on the first mortgage bonds, and 5 per cent interest on the second mortgage bonds, but also 4 per cent dividends on the outstanding stock.

[n] Of the 114 guaranteed railroad issues studied by Volkeming[17] 96, or 86 per cent, were guaranteed as to principal and interest and 18, or 15 per cent, as to interest only.

[o] The Southern Pacific Company guarantees the interest only on the two main issues of the Houston and Texas Central Railroad, but guarantees both the principal and interest of its largest underlying issue.

[p] The writer has been told of a case of a coal company bond with principal guaranteed by a well-known trust company in New England. The enterprise was of the most speculative character. As a matter of fact 40 per cent of all the sums received by the promoters in the sale of their bonds was handed over to the trust company. This amount compounded at

---

[16] *Op. cit.*

[17] *Op. cit.*

also of personally guaranteed bonds. These are fortunately rare as they are, at best, a makeshift. Sometimes they arise through the efforts of one man or group to sell bonds on an undeveloped and as yet unproductive piece of property.[18] Sometimes the guarantee is regarded merely as a temporary expedient until the property becomes productive.[19]

Two Factors in Value.—The relative importance of the guarantee which is attached to the guaranteed bonds varies according to the individual circumstances. In the end, whether we center attention on the guaranteeing corporation or on the corporation whose bonds are guaranteed, the true value of the bond lies in the earning capacity of the physical property or the business good-will of the issuing company. So that the value to be placed on a guaranteed bond may be dissolved into two distinct and separate elements—the value of the unguaranteed bond as evidenced by the separate and distinguishable earning power of the separate corporation and the value attributable to the additional earning power implied in the unsecured promise of the guaranteeing corporation. Obviously if the separate corporation has an independent earning power, relative to its bond capitalization, equal to or greater than that of the guaranteeing corporation, then the guarantee adds nothing. Some of the first mortgage bonds of the Houston, East and West Texas—a subsidiary of the Southern Pacific Company—are guaranteed by the Southern Pacific. Some of the same issue are not. Yet the New York Stock Exchange prices of the guaranteed and unguaranteed bonds are practically the same. So great, in the minds of investors, is the independent earning capacity of the Houston, East and West Texas that the guarantee of the Southern Pacific adds nothing.

1-origi
2 addi

---

4 per cent equaled exactly the principal of the bonds at the date of their maturity. Chamberlain cites a case of similar purport in which a national bank acted as the guarantor. Chamberlain, L., Principles of Bond Investment, 79 (1911).

[18] Huntington Land and Improvement Company.
[19] Billings Gas Co., First Mortgage 5s, 1937.

INTRINSIC STRENGTH OF THE BONDS THEMSELVES.—If this analysis is true, that the value of a guaranteed issue is made up of two independent variables, then we would expect to find that different values would be attached to different bond issues with the same guarantee. In other words, there would be marked variations among the market values of the guaranteed bonds of the same corporation, according to the varying earning capacities of the physical property specifically securing each separate issue. This is true. This principle is excellently illustrated by a variety of bond issues of companies subsidiary to or closely allied with the lines of the Southern Pacific Company. The Southern Pacific Company is merely a holding company organized under the laws of Kentucky. It operates no railways, but it owns the stocks of all the lines constituting the Southern Pacific system of railways, and it has profusely guaranteed a great variety of the bonds of these lines. Theoretically, at least, its own guarantee of one issue is quite as good as that of another; so that, from the investment point of view, these different guaranteed issues would be of equal value so far as the guarantee was concerned. Their difference of value would arise from a difference in the intrinsic value of the property underlying each issue, quite independent of the Southern Pacific Company's guarantee.

This difference is striking. Of the 17 subsidiary issues having the full guarantee of the Southern Pacific Company, no two sell on exactly the same investment basis. They range (taking the spring of 1916 as an appropriate time for comparison) from 4.30 per cent for the First Mortgage 4s of the Central Pacific Railway to 7.40 per cent for First Mortgage Bonds 4s of the San Antonio and Aransas Pass Railway. The general unsecured credit of the Southern Pacific Company, as evidenced by its ordinary debentures, was 5.32 per cent.[20]

True, there may be instances in which a holding or controlling corporation will maintain the interest or rental on an unprofitable subsidiary's bonds, for strategic reasons only;[q] the rule holds good almost always that the strength of a guaranteed bond is no greater than that of the corporation issuing it and the earning capacity of the property directly covered by it.

---

[20] See also Book I, Chapter IV, note (w); also note (cc) below.

This principle applies with special force to the guarantees by a large public utility holding company of the bonds of its subsidiary operating companies. The chances are that the only assets of the holding company are the common stocks of the operating companies; other than in the dilution or distributions of possible losses such a guarantee adds nothing to the security of the subsidiary bonds, since the only value of this guarantee lies in the equity over and above these and similar bonds.

STRENGTH OF GUARANTEEING CORPORATION.—Needless to say the guarantee by an industrial corporation, with a heavy debt on its own plant, of a bond issue of some subsidiary which could not exist without the orders from the parent company, hardly adds to the security of the subsidiary bonds. The true significance of the guarantee is clearly shown at the time of reorganization. If the corporation making the guarantee fails, its receiver may continue to refuse to carry out its previous contracts, among which are its various leases and guarantees.[r] If the guarantee is unprofitable he will refuse to abide by its terms, so that the final security, here as elsewhere, is the earning capacity of the property covered by the bonds. Nor does the larger corporation have to fail to be able to repudiate its guarantee. It may simply notify the bondholders that it will be no longer responsible. Although the bonds may thus become legally a direct liability of the guaranteeing corporation, the only result of attempting to enforce this liability would be to throw the corporation into the hands of receivers, when the guarantee would probably be ignored by the receivers. Of course, so long as the property covered by the bonds earns more than the charges, the guarantee will never be repudiated, even during receiverships.[s]

---

[q] Three examples from different industries show the strategic importance of many subsidiary companies which fail in themselves to earn their interest charges, but whose bonds are reasonably secure.

Railroads. The San Antonio and Aransas Pass Railway occupies a strategically important position with reference to the Southern Pacific Company's Texas lines. Its First Mortgage 4 per cent Bonds of 1943, are guaranteed principal and interest by the Southern Pacific Company. The San Antonio and Aransas Pass Railway itself has earned the interest on its bonds only one year out of the last five. In fact, in 1914-15, it barely paid the direct costs of operation. Yet its strategic importance to the Southern Pacific Company's lines is such that the guarantor company very wisely meets the bond interest deficit.

Public Service. The Westchester Lighting Company has a franchise for a part of the Borough of The Bronx and supplies gas and electricity north of New York City as far as Mount Kisco. During several years the company failed, according to its published accounts, to earn its fixed charges, although its territory was rapidly developing and it may become a very valuable component of the Consolidated Gas Company. A large part of the bonds of the Westchester Lighting Company are guaranteed by the Consolidated Gas Company, and because of the strategic importance of the property to the larger corporation the credit of these bonds is unquestioned.

Industrial. The National Starch Company, although it has been a financial failure and has accumulated a large deficit, holds the title to exceedingly valuable trade-marks, some of which have been in existence for over half a century. Its stock is owned, and the company is controlled, by the Corn Products Refining Company, which has guaranteed the principal and interest on its bonds. These bonds, in spite of the continued failure of the National Starch Company, enjoy a high credit, based on the great importance of the trade-marks to the controlling company.

The Case of the Western Pacific Bonds.—The remarkable case of the old Western Pacific Railroad bonds bears directly on the subject of the validity and strength of guarantees. In fact, of all instances of bond guarantees this case had, probably, the most far-reaching consequences.

---

[r] It should be remembered, however, that the receiver has no power to repudiate a contract as between the original contracting parties. He merely, as receiver, refuses to be bound by it, or to carry out its terms in such a manner as to bind the trust estates in his hands. If the property is finally sold, legal damages resulting from the fact that the contract was not observed are a charge—like that of any unsecured judgment creditor—against the residue of the estate after the satisfaction of the secured creditors. But as this residue would probably be little or nothing, the legal remedy of the original contractor would have no value. The important point is that the receiver cannot be forced to specifically perform the contract if, in his opinion (supported by the court) such performance is not in the best interest of the embarrassed estate in his hands.

[s] During many receiverships there are guaranteed bonds, the interest on which is regularly paid, although the direct obligations of the failed corporation are defaulted. This simply means that the property covered by the guaranteed bond is self-sustaining. In rare cases the interest is continued for strategic reasons, as was done by the receivers of the St. Louis and San Francisco on the guaranteed bonds of the Ozark and Cherokee Central.

The old Western Pacific Railway was incorporated in 1903 to build the western extension of Gould's trans-continental railroad. Not only did the Denver and Rio Grande Railroad guarantee the interest and sinking fund on the Western Pacific Railway 1st 5s of 1933 but it also agreed to supply the additional funds, to be represented by second mortgage bonds, sufficient to finish the road. But when finished it did not pay. Yet the Denver and Rio Grande continued to make up the deficit on the Western Pacific Company's first mortgage bond interest until March 1, 1915, when default was made on the Western Pacific bond interest—the Denver and Rio Grande refusing longer to meet its obligations under the guarantee. Ultimately the Western Pacific Railway passed into the hands of receivers and was reorganized.

In October, 1915, the Equitable Trust Company of New York, Trustee of the old Western Pacific bonds, brought a suit against the Denver and Rio Grande Railroad for damages resulting from the breach of the guarantee. It was expected by many students of finance that some technical defense would be successfully offered by the attorneys for the Denver road and there would come into the history of the subject the classic case of a great railway bond issue repudiated with impunity. It proved otherwise, however.

The United States Court[21] quickly rendered a decision in favor of the guaranteed bonds, directing judgment for $38,000,000. This was affirmed by the Circuit Court of Appeals.[22] Five days later the Denver and Rio Grande had itself petitioned into a receiver's hands. Ultimately,[23] in spite of the efforts and long struggles of the stockholders the equity in the Denver and Rio Grande Railroad, above its bonded debt, was sold for $5,000,000 for the benefit of the judgment secured by the Western Pacific bondholders. In other words, the guarantee of the Denver and Rio Grande could not be repudiated;

---

[21] United States District Court for the Southern District of New York. Decision rendered May 17, 1917. See Equitable Trust Co. v. Denver and Rio Grande R., 250 Fed. 327; also 246 U. S. 672.

[22] January 4, 1918.

[23] November 20, 1920.

and in an effort to treat it with impunity, the Denver and Rio Grande was forced into receivership and whatever equity belonged to $90,000,000 of stock was finally turned over to the holders of the guaranteed bonds.[t]

Joint Bonds.—Closely associated with guaranteed bonds are joint bonds; in the case of these the dual or plural character of the obligation consists merely or primarily of a joint guarantee. Joint bonds ordinarily may arise through the cooperative endeavor of several corporations, particularly railroads, to build structures or branches of road that can be used jointly. Such undertakings include terminals in large cities, wharves, docks, bridges involving considerable cost, or connecting lines for the interchange of traffic. Quite generally these joint bonds are the direct obligation of some small local corporation created by the roads for the purpose of taking title to the property covered by the bonds. For example, a terminal joint bond is usually the direct obligation of a company created to own and operate certain terminal properties. The railroads

---

[t] Three of the technical defences employed by the attorneys for the Denver and Rio Grande are of general interest.

The Denver and Rio Grande Railroad contended that the guarantee was contingent on earnings, and ran to the old Western Pacific Railroad and not to the Equitable Trust Company, as Trustee of the bonds. To this the Court decided that "there was no contingency, there was nothing on which the payment depended that did not depend on the Denver Company's will," because of its control of the Pacific Company. It was therefore considered a direct liability to supply the deficit to or through the trustee for the Pacific Company's bonds.

Next the Denver Company claimed that if there was a liability, it must be limited to the interest accruals before the foreclosure,[24] at which time the original Pacific Company was, in a sense, dead. The judge replied that this was within the contemplation of the parties, and caused in a sense by the action of the defendant, and hence could not be allowed.

The Denver Company now claimed exemption on the basis of the original guaranty being an ultra vires act. The Judge's opinion follows: "A corporation may within the boundaries of legal action make any contracts for its corporate benefit upon proper consideration; its agreement may be conditional as well as direct, and the lawful end to be obtained is usually the test of corporate power. . . . It follows that we do not regard the liability imposed on the defendant as prohibited by statute."[25]

---

[24] U. S. v. Union Pac. RR., 91 U. S. 72.

[25] In a previous case, State v. Hocking Valley, 31 Ohio Cir. 175, the court had decided that the guarantee of a railway of a coal company's bond was ultra vires, or beyond the corporate power of the railway.

divide up among themselves the stock [u] and enter into contracts to use its facilities, paying for them in accordance with the proportion of space occupied or the number of trains or cars that leave the terminal. These rentals received from the operating roads are supposed to be at least equivalent to the interest on the terminal company's bonds, although it is merely a matter of bookkeeping whether the bond interest comes from the railroads directly or comes indirectly through terminal charges.[v] One issue of terminal bonds is guaranteed by twelve different railroad corporations, including some of the strongest in the country.[w] Bridge bonds, similarly, are issued by separate cor-

---

[u] This division of stock among the controlling railroads and with it the division of control, leads sometimes to controversies. The stock of the New Orleans Terminal Company was owned in equal amounts by the Southern Railway and the St. Louis and San Francisco Railroad, the roads guaranteeing the terminal company's bonds, jointly and severally. Each road agreed to meet half the bond interest. For mutual protection the stock of the Terminal Company was lodged with a trust company under an agreement giving the two roads an equal voice in the management and providing that, in case either road defaulted on its share of the interest money, its half-interest should be delivered over to the other. The St. Louis and San Francisco Railroad defaulted and the receivers brought action to prevent the trust company from delivering its stock to the Southern Railway.[20]

[v] An excellent example of a terminal bond combining a variety of special features is that of the Boston Terminal Company which owns the "South Station." These bonds are a direct obligation on one of the largest terminals in the country. In addition the New York, New Haven and Hartford Railroad, with three of its subsidiaries, and the Boston and Albany Railroad, a subsidiary of the New York Central, have agreed to make good any deficiency in the case of foreclosure of the bonds. This amounts to a guarantee by all these roads of the principal and interest. These bonds are tax exempt in Massachusetts, where all railroad bonds can be taxed by the local authorities. As a result of these features the Boston Terminal Company's 3½ per cent Bonds have sold on a 3.85 per cent basis when the general credit of the New Haven railroad was on a 5.80 per cent basis, and that of the Boston and Albany on a 5.10 per cent basis. Although this divergence is greater now than when the terminal bonds were issued, yet it indicates the economy to the roads of paying for the terminal by the issue of such special bonds.

[w] Kansas City Terminal Railway Company's bonds. Each of the twelve railroad corporations mentioned below unconditionally guarantees to pay one-twelfth of the principal and interest of these bonds.

Atchison, Topeka & Santa Fé Railway Co.
Chicago & Alton Railroad Co.
Chicago, Burlington & Quincy Railroad Co.
Chicago Great Western Railroad Co.
Chicago, Milwaukee & St. Paul Railway Co.
Chicago, Rock Island & Pacific Railway Co.
Kansas City Southern Railway Co.
Missouri, Kansas & Texas Ry. Co.

---

[20] 162 App. Div. (N. Y.) 301 (1914).

porations created by the roads using a bridge.[x] Similar joint guarantees are extended to wharf and connecting line roads.[y]

In the case of the joint guarantees of the securities of a "little corporation," it should be remembered that, although the bonds may be a direct obligation of the terminal, bridge, or connecting railway company, it is the joint guarantee of the corporations actually issuing the property which constitutes the real security of the bonds. And although in some cases, discussed at length before, the sale value of the actual tangible property may be a sufficient security for the bonds, such cases are rare. In almost all instances a joint terminal, bridge, or connecting railway company bond is based merely on the general credit of the guaranteeing corporations. If they should cease to use the bridge or connecting road it would have practically no value to any other corporations or for any other purposes. If the guaranteeing railroads should fail, their receivers could repudiate the contracts under which the terminals, bridges, or connections are used and the bondholders would have little income-producing property to fall back upon. The

---

Missouri Pacific Railway Co.
St. Louis & San Francisco Railroad Co.
Union Pacific Railroad Co.
Wabash Railroad Co.

If any of the railroads defaults on its share, the remaining companies have agreed to make good the deficiency, but will, at the same time, exclude the defaulting road from the use of the terminal.

[x] A good illustration is offered by the bonds of the Paducah and Illinois Railroad Corporation. This little corporation was created for the purpose of building a connecting link between two great systems of railroads. This consisted of a steel double-track bridge across the Ohio River near Metropolis, Illinois. Over this link moves a great part of the interchange of traffic between the great Hill systems of the Northwest and the Atlantic Coast line systems of the Southeast. Before the building of the bridge this interchanged traffic was handled by a car ferry. All the stock of the Paducah and Illinois Railroad is owned by the Chicago, Burlington and Quincy Railroad and the Nashville, Chattanooga and St. Louis Railway. These roads have agreed to use and pay for the facilities of the connecting bridge road. They have also jointly and severally unconditionally guaranteed the principal, the interest, and the sinking fund payment of the bonds.

[y] The first mortgage 4½ per cent bonds of the New York Connecting Railroad Company are guaranteed principal and interest jointly and severally by the New York, New Haven and Hartford Railroad and by the Pennsylvania Railroad, which have built the road as a connection between the two roads across New York City.

strength, therefore, of such issues lies theoretically in the multiplicity of guarantors and practically in the general credit or inherent financial strength of the strongest. It does not lie in the physical property directly covered by the mortgage, although in form these joint bonds may be first mortgage, general mortgage, collateral trust, and even equipment bonds.[27] For this reason, such bonds as a class are considered general credit bonds rather than bonds directly secured by property.

Debentures.—Aside from assumed and guaranteed bonds there is a large class of straight credit obligations unsecured by any direct or indirect pledge of property. They are called debentures. Such obligations are merely promises to pay a certain sum of money at a given time. Prior to 1899, most debenture bonds recited on their face the conditions, if any, under which they were issued and the specific covenants, if any, made by the corporation. This often necessitated lengthy bonds. Since the above date most debentures have been issued under an agreement or indenture, in which a trust company is mentioned which shall supervise the execution of the covenants. Under whatever form of legal instrument they may have been issued, however, they are, in effect, promissory notes resting solely on the general credit of the corporation.

Many writers on corporation finance generally and on railroad finance specifically emphasize the weakness from an investment point of view of ordinary debenture bonds. The general ground for this alleged weakness lies in the fact that they have not, like mortgage bonds, the right of foreclosure. One writer went even so far as to suggest that they are inferior to preferred stocks in so far as they have no voting power.[28] This disparagement of debenture bonds would seem

---

[z] This disparagement is expressed by such quotations as this: "The similarity (of the debenture) to the income bond is close, in that the interest on the debentures is 'payable if earned' and not otherwise." Ripley, W. Z., Railroads, Finance and Organization, 142 (1915).

A much fairer account is that of Lyon, W. H., Capitalization, 38 (1912), and also Mead, E. S., Corporation Finance, 306 (1915).

---

[27] See Book I, Chapter VII.

[28] Moody, Analysis of Railway Securities, 138 (1910).

to be ill considered. While it is perfectly true that there is no right of foreclosure, it is equally true that a default in the interest or principal of debenture bonds precipitates failure and receivership. It was the threatened default on interest of the Chicago, Rock Island and Pacific Railway Debenture 5s that precipitated the need of a receivership and reorganization of this railway. Practically all the reorganization did, aside from securing new money, was to refund these debentures into preferred stock. Had the debentures no stronger lien on the corporation's assets than preferred stock, it is certain that no receivership would have occurred. If the company passes into the guardianship of the court, through the appointment of an equity receiver, the right of foreclosure is a matter of more theoretical than practical importance. In the final reorganization, securities are given a preference according to their relative priorities; and the question whether a security does or does not possess a lien on specific property is of importance only so far as the physical property has independent earning power.

An investor is apt to place an undue significance on the mere word "debenture," because he has been told that debenture bonds are bonds only in name. This is illustrated by the $1,500,000 Long Island Railroad 5 per cent Debenture Bonds of 1931. These are preceded only by three small issues of prior lien bonds issued before 1890. They are followed by four large issues of other bonds. The largest is guaranteed by the Pennsylvania Railroad, and aggregates over $54,000,000. Nevertheless, the word "debenture" in their title has prejudiced investors against them and their market price has never been commensurate with their fundamental security.

As a rule debenture bonds are of shorter life than the first mortgage bonds, because of the presumption that a corporation's future moral obligation to meet its debts cannot be predicted as certainly as the future value of its property. But it has been pointed out earlier [29] that long-term mortgage bonds are little more than debenture bonds owing to the insecurity of property values in a distant future. Among railroads debenture bonds are issued during periods of what might be called "waiting-time" financing, when it is inexpedient to sell long-term mortgage bonds because of previously existing mortgages and temporarily poor credit, yet when the market can absorb an obligation of longer maturity than the so-called short-term notes.

---

[29] Chapter IV.

This is well illustrated by the issue of the New York Central Railroad Debenture 6s sold to stockholders in February, 1915. At that time the New York Central's credit was at a low ebb. The year that had just closed showed less than 4 per cent earned on the stock, although 5 per cent was paid by deferring the last quarterly dividend. It was the least encouraging year of the New York Central since 1895. Yet the company had a large floating debt of $131,000,000 due within the next ten months incurred very largely by the Grand Central Terminal improvements. This must be funded. The road could have sold its Refunding and Improvement Mortgage Bonds of 2013, had it so chosen, but these were quoted on an interest basis of about 5.3 per cent. It could have continued the wasteful process of renewing its floating debt with the bankers, but the interest and renewal commissions on this money then amounted to well over 6 per cent. Clearly its long-term mortgage bond credit was too poor for an issue of high-grade bonds, and it had to do something to encompass an unmanageable floating debt. It followed the middle course and issued $100,000,000 6 per cent debenture bonds, due in twenty years.

"Weakness or Markedly High Credit."—Debenture bonds are issued by both strong and weak roads. Generally speaking the road of strong credit is apt to finance improvements by ordinary debenture bonds, while the weak roads are more apt to use a general mortgage or a refunding mortgage bond, in order to give the appearance of mortgage security although it has not its substance.

It has been said that railroad debentures "are signs either of financial weakness or of markedly high credit,"[30] but this generalization should not be applied too strictly.[31] Some railroad corporations have issued no bonds except debenture bonds. This is true of the English railways[aa] and, until recently, the more important roads in New England. All things considered, however, the generalization does indicate certain rough approximations. When the credit of a road is very weak, with a financial structure overloaded with underlying bonds, the road finds it impossible to sell its mortgage lien bonds to conservative investors. By offering debentures at a considerable discount it attracts speculators who are led to believe that it will be forced to protect its credit, even though the debenture bonds have no substantial security behind them. On the other hand, strong railroads are able to sell their debentures on a high investment basis and do not, therefore, feel compelled to offer investors the additional security of a mortgage lien.

Debentures are found most often in our American finance among industrial corporations, owing to the long cherished prejudice among bankers and stockholders against a direct mortgage on a manufacturing plant. They seldom occur

---

[aa] In England the practice is distinctly adverse to any form of mortgage and the debenture bonds of the English roads are but little different from what we would call first preferred stocks. Such debenture bonds are weak from the investor's point of view owing to the fact that the corporation may increase its outstanding obligations almost without limit, as there is seldom any provision prohibiting further issues. With each new outpouring of debentures the market values of the old issues fall. This is illustrated, so far as this country is concerned, by the market history of the various debenture issues of the New York, New Haven and Hartford Railroad. The 3½ per cent debentures were issued in 1897; they were quoted as high as 105 in 1902, a 3.31 per cent basis. In 1901, 1902, 1904, 1905, 1906, and 1908 other issues of the New Haven debenture bonds were marketed—the last issue on over a 6 per cent basis. The earlier issues had no greater security than the later issues, and the holders of the earlier issues were helpless to protect themselves in the face of the New Haven's steadily declining credit. In 1921 they sold at 35. Had the older bonds been mortgage obligations, they would have fallen in value, but not to the same extent.

---

[30] Ripley W. Z., Railroads, Finance and Organization, 142 (1915).

[31] The Long Island Railroad Debentures of 1894, the Chicago, Rock Island and Pacific Railway Debentures of 1912 and the Chesapeake and Ohio Railway Debentures of 1910 were issued at times when the credit of the roads was unmistakably "mediocre."

among public utility companies where the general feeling of the investor is to demand a direct lien on physical property. When existent, they have been usually issued either by very strong corporations, such as the Consolidated Gas Company of New York or the Detroit Edison Company, or else weak corporations, such as the Columbia Gas and Electric Company. In fact there is, apparently, evidence to lead to the belief that the generalization quoted in the preceding paragraph is seemingly truer for public utility corporations than for railroads, probably because the investing public is now less accustomed to public utility company debentures than to railroad debentures. The corporation of medium credit can afford, least of all, to run counter to investment prejudice.

Disadvantage—Uncertain Security.—The great disadvantage of all debenture bonds is the uncertainty of security. The very name implies this uncertainty and of itself militates against the standing of the bond. Many cases of this exist. As noted above (page 160) the Long Island Railroad issued $1,500,000 5 per cent Debentures in 1894. It was specifically mentioned in the agreement under which the bonds were issued, and on each bond itself, that should any mortgage be created subsequently these debentures would be specifically provided for, that is, reorganized as a prior lien on the property. This was done by three successive mortgage bond issues. Yet, in spite of its remarkable position and basic security, the issue has never commanded a corresponding price. In matters of investment there is much in a name!

The uncertainties in connection with the issue of debenture bonds are fully realized. At the present time, therefore, except in corporations of very strong credit, both bankers and investors insist on certain restrictions and safeguards. Sometimes it is provided that no further debentures shall be issued. Most common, however, is the provision that no mortgage may be created on the property without including the issue of debentures.

The Boston and Albany has no less than eight separate issues of debentures aggregating $25,000,000, all of which—according to an old Massachusetts state law, dating back to 1854—must be covered by a mortgage if the road ever sees fit to create one. In this manner the holders of the debentures are assured that no later issue of securities will cut in under their position and destroy the strength of their security.[bb] This provision is just. The purchaser of a debenture bond naturally judges the strength of the issue by the property and earning power which is unmortgaged. But if the corporation exercises the legal right to place new mortgages on the property unmortgaged at the time of the sale of the debenture, the strength of the issue may be undermined or perhaps destroyed, and the holders of the debentures be powerless to prevent it. The credit of the Boston and Maine Railroad was so high for years that it borrowed money on its mere promise to pay. But as the credit of the company declined from negligence and the mismanagement of its property, more and more of its assets had to be specifically mortgaged, so that the property upon which the earlier creditors based their trust was gradually withdrawn from their control. Finally, after the last reorganization a blanket mortgage was placed on the property securing several separate issues. Provision in this mortgage was made for the debentures remaining in the hands of the public.

Since the lessons of the abrupt reversal of business of 1920-1921 have been borne home, a new protection in the form of restrictions on open market borrowings has been inserted in recent debenture bond contracts. Such means of protection had been observed before. For example, the debentures of the General Rubber Company were issued under a contract which provided that the company must maintain its net quick assets consisting of cash, accounts, and bills receivable and merchandise, at not less than 120 per cent of the amount of the debentures outstanding; and furthermore, the company agreed not to place any mortgage upon its property without including all the debentures, nor to issue any obligations (except notes given in the regular course of business) which should not explicitly reserve for the debentures the prior right to receive payment.

[bb] This is specially important in the case of industrial debentures because of the fluctuation in the earning capacity of industrial enterprises and the rapid depreciation of the physical property. Thus, when the syndicate originally sold the American Can Company's Debenture 5s much emphasis was laid on the fact that the company had no mortgage bonds and that it agreed not to create any so long as these debentures were outstanding.

Special care should be exercised by the investor in debenture bonds and short-term notes—usually nothing more than short-period debentures—to ascertain his protection against the future issue of bonds that can be placed ahead of his own. Great care is required in buying the debentures of public utility companies—those of holding companies in particular—for a large part of these are unprotected in just this important particular. Unfortunately, too, numerous cases exist in which the corporation has abused its liberty by placing new mortgages on the assets of its underlying companies—the only assets possessed by the holding company.

Lately, however, the requirements for the maintenance of a liberal margin of quick assets have become usual in all the debenture bond issues of industrial corporations which are sold in the open market. In extreme cases, the corporation is required to maintain quick assets equal to twice the liabilities, including the debentures. In this computation the inventories must be taken at cost or market value, whichever is the lower. Such restrictions undoubtedly protect the holders of the debenture bonds against losses due to deflated inventories, but they also restrict, possibly unduly, the borrowing power of the corporation.

It was suggested at an earlier point that the investment value of guaranteed bonds rested on the earning capacity of the issuing company and not on the guarantees. It is significant, in view of this presumption, to compare the investment position of the guaranteed bond with that of the ordinary debenture, since both rest ostensibly upon general credit. The theory can be seen best in the light of a concrete case where bonds of nearly every conceivable form rest on the general credit of one corporation. The funded debt of the Southern Pacific Company affords perhaps the best example because of such variety. Using this company as a basis of computation, it appears that the straight debentures command a conspicuously better market price among investors than guaranteed bond issues without substantial independent security, notwithstanding the fact that both are based on the same corporation's general credit.[cc] This is one of the anomalies of investment values not easily explained unless the value to be attached to a wide market is unduly emphasized.

Income Bonds.—Income bonds are the weakest of all obligations resting on general credit.[32] They involve no definite contract between the holders and the trustee to insure the payment of the interest, although the company promises to pay the ~~principal~~ at a definite future time.[dd] In legal phraseology they are a "charge upon the company's income, but not upon the corpus of the property."[34] The interest is paid when earned. But the holders of income bonds cannot enforce their

---

[cc] The Southern Pacific Company, as noted above, page 152, has extended its full guarantee to 17 different issues. The underlying security, the branch line railway, behind two of these issues, the San Antonio and Aransas Pass 4s, 1943, and the Los Angeles, Pacific Ref. 4s, 1950, have little earning capacity beside that furnished directly or indirectly through the Southern Pacific Railroad system. Both issues have the Southern Pacific Company's guarantee. The average yield of these two was 7.03 per cent. That of the straight debentures of the Southern Pacific 5.32 per cent (spring of 1916). The same general relationship has been maintained during the period of the Great War. In the autumn of 1925, the average of the two guaranteed issues was 6.09 per cent and the Southern Pacific Company's Debentures 5.03 per cent.

[dd] There are even exceptions to this. The Brunswick and Western Railroad (a subsidiary of the Atlantic Coast Line) has a small issue of irredeemable 5 per cent income bonds. Except in the right of the bondholders to insist on a rigid system of accounting, such "irredeemable income bonds" are indistinguishable from non-voting preferred stock. A decision of an English court seems to imply that income bondholder may have a lien on income, but not on the proceeds of the sale of capital assets.[33]

---

[32] Discussions of income bonds, see Ripley, W. Z., Railroads, Finance and Organization, 139 (1915). Also numerous instances cited in Daggett, Railroad Reorganizations. There are many leading cases cited in legal treatises.

[33] Gardner v. London, etc. Ry. Co., 2 Ch. 201, 217 per Ld. Cairns.

[34] Machen, Modern Law of Corporations, 2100. See particularly Stewart v. Chesapeake, etc. Canal Co., 5 Fed. 149.

claim, unless they can prove that it was earned within a period during which it accrued. It should be noted in passing that income bonds are frequently called "adjustment bonds" or "preference bonds" owing to the unpleasant associations that attach themselves to income bonds in the minds of investors.[ee]

The issue of income bonds, particularly those of railroad corporations, permit an interesting but not altogether pleasant history. The earliest example of an income bond in our American financial history, which has attracted attention is that of the Chesapeake and Ohio Canal Company. These bonds were issued in 1848 and were secured by "preferred liens on the revenues and tolls that may accrue to the said company from the entire and every part of the canal and its works between Georgetown and Cumberland." [37] The practice was continued sporadically down to the panic of 1873, particularly in connection with the construction of new railroads as a means of getting money from a contingent charge security.[ff] Railroad preferred stocks were then practically unknown. In 1880 there were no less than 37 separate bond issues, the interest on which was contingent on earnings.

The frequent use of income bonds, however, did not occur until the time of the railroad reorganizations of 1884, nor did income bonds become common until after 1895, when they were used as an accepted expedient in refunding fixed charge securities of failed railroads. In fact they amounted to nearly a

---

[ee] In an exhaustive study made by Potter[35] of income bonds outstanding in June 1925—106 separate issues—20, or about 20 per cent, of the issues outstanding did not employ the word income in the title. Some of these issues owing to changes in railway credit since their issue are among the strongest of investment securities—the Atchison, Topeka and Santa Fé Railway Adjustment 4s,[36] for example.

[ff] Only one of these early income bonds is now outstanding—that of the Elmira and Williamsport Railroad issued in 1863. But the interest of this issue has since been guaranteed by the Pennsylvania Railroad, so that it can be classed no longer as income bond, except in name.

---

[35] Potter, Norwood, Income Bonds, Harvard Graduate School of Business Administration (1926).

[36] Daggett, Railroad Reorganizations, 211.

[37] Mortgage dated June 1, 1848. Based on Maryland Statute 1844 c. 281. Further details in Stewart v. Chesapeake and Ohio Canal Co., 5 Fed. 149; 83 Md. 549.

third of the preferred stocks—the acknowledged contingent charge security—issued as a result of railway reorganization.[gg]

54 25 17

Degree of Use Today by Railroads, Utilities, Industrials.—Potter [39] found 106 separate issues of income bonds in American finance of which 54 were railroad issues, 35 public utility (mostly traction) issues and 17 industrial issues. A surprisingly large number of these issues were created since the close of the Great War, so that income bonds do not, as has been suggested, belong to a financial past.[hh] In fact, it may be said, that although income bonds are becoming gradually discredited in railroad finance, they are being used with increasing frequency in industrial and public utility financial plans.

In practically every case, down to the present time, railway income bonds were issued as a part of the reorganization plan of a failed railroad.[ii] But the same generality does not prevail among industrial and public utility issues.[jj] In fact, there is

---

[gg] Meany, in his study of the changes of railroad financial structure due to the reorganization of the nineties[38] found that about one-eighth of the bonds issued for refunding purposes were income bonds.

The following figures summarize the results of a study of 313 railroad reorganizations consummated between 1884 and 1900.

Share Capital:		
Preferred Stock	$ 584,670,159	
Common Stock	867,126,618	$1,451,796,777
Interest Bearing Bonds	1,270,106,582	
Income Bonds	175,413,311	1,445,519,893
Total Stock and Bonds		$2,897,316,670

[hh] The following comparison from Potter's table is illuminating:

	Railroad	Public Utility	Industrial	Total
Issued before 1900	25	1	1	27
Issued from 1900 to 1918	19	7	5	31
Issued from 1918 to 1925	10	27	11	48
Totals	54	35	17	106

[ii] Of the 54 railway income bonds outstanding in 1925, studied by Potter [40] 51 were issued at the time of reorganization and the other 3 were small issues of roads with little credit.

[jj] In Potter's [41] list of 35 public utility income bonds, at least 19, mostly tractions, can be definitely attributed to failure and reorganization. At least 5 of those remaining can be unquestionably attributed to the promotion of a new and sound company, and 1 to refunding a taxable preferred stock

---

[38] Poor's Manual of Railroads, 1900.

[39] *Op. cit.*

[40] *Op. cit.*

[41] *Op. cit.*

evidence to indicate that since 1918 there has been a distinct inclination to issue income bonds, rather than a prior preference stock, at the time of the promotion of an otherwise sound and wisely conceived corporation.[kk] Within the last few years two large electrical central station holding companies have issued income bonds—and one of them of long duration.[42] Among the industrial income bonds, those of mining and oil companies—7 out of the 17 studied [43]—have, perhaps, the most obvious justification. From past experience, however, one may assume that income bonds, even those issued for the purpose of securing new capital by sound and solvent corporations, are not popular among investors.[ll]

Interest Provisions.—The payment of interest on the older income bonds was almost invariably non-cumulative,[mm]

---

into a non-taxable preferred stock or into a non-taxable income bond. Of Potter's 17 industrial income bonds 9 can be attributed to reorganization, 4 to the time of original promotion, 1 to a creditor's readjustment.

[kk] As bonds were non-taxable in Maryland, and preferred stock dividends were subject to ¼ of 1 per cent deduction for taxes, income bonds have been frequently used by Maryland corporations at the time of promotion or for refunding. The Mount-Woodberry Cotton Duck Company, for example, had a large issue of income bonds, and among other Baltimore enterprises which did the same was the Gottlieb, Bauernschmidt, Straus Brewing Company. The United Railways and Electric Company of Baltimore Income Gold 4s, dated 1899, were issued to the preferred stockholders of the company in exchange for their stock at par—the immediate purpose being the evasion of the tax law referred to above.

[ll] Sometimes corporations too weak to sell preferred stock have sought to market income bonds rather than straight mortgage or debenture bonds. To such a situation is to be attributed the issue of $10,000,000 Cumulative Adjustment 7 per cent Bonds of the Denver and Rio Grande Railroad sold to its stockholders at par in 1912 in order to provide for improvements and the accumulating deficit of the Western Pacific Railway. The interest was payable only out of the surplus net earnings, " in such amounts as the Board of Directors shall determine." In case the full 7 per cent was not paid the unpaid balance should accumulate and be payable at the maturity of the bonds in 1932. Except in becoming a fixed liability at the maturity date, these income bonds were intended to be no different from an ordinary cumulative preferred stock. An unforeseen contingency arose, however. With the legal subterfuges brushed aside, it appeared that the bonds became a lien, to be foreclosed in the case of interest default, when the road failed to maintain its guarantee on the Western Pacific Railway bonds.

[mm] Of Potter's [44] list of 25 railway income bonds now outstanding issued

---

[42] Power Securities Corporation 6 per cent 2nd income bonds, issued in 1919, due 1949. Total issue, $3,785,000, cumulative, and specifically secured by the deposit of collateral. National Power and Light Company 7 per cent 50-year income bonds, cumulative, issued in 1922, due 1972. Total issue, $8,417,000.

[43] Potter, *op. cit.*

[44] *Op. cit.*

so that if the interest was not earned and paid in any one period the corporation was not under any obligation to make up the deficiency in later more prosperous years. In some cases the interest payments were not cumulative for the first few years, but were cumulative thereafter.[nn] In rarer cases the interest was made to become fixed on what amounts to a sliding scale.[oo] In still rarer cases the corporation obligated itself to establish a reserve fund from which to draw the income bond interest during periods of low earnings.[pp] In the income bonds issued during the later reorganizations these anomalies are done away with and income bonds have been issued more frequently with cumulative interest warrants, so that the unpaid interest during poor years becomes a direct charge during more prosperous years. Such cumulative income bonds differ from ordinary bonds only in the particular that interest default cannot precipitate failure.[qq]

Uncertainty of Interest Payments.—The use of income bonds is objectionable because the uncertainty of interest payments is very likely to cause confusion and litigation. Con-

---

before 1900, 2 only have their interest payments cumulative. One public utility and one industrial income bond, issued before 1900, remain outstanding. Both are non-cumulative.

[nn] The interest on the Atchison Adjustment (Income) Bonds was non-cumulative up to July 1, 1900, and cumulative thereafter. In rare instances the interest becomes cumulative after the occurrence of a specified event. The interest on the Midland Valley Railway Adjustment (Income) 5s was to become cumulative if the old construction company of the old management exercised its option to purchase the preferred stock between 1914 and 1923, the price being determined by a sliding scale beginning at $35 a share in 1914, and ending at $55 a share in 1922.

[oo] The most unusual case of this kind was that of an issue of Cincinnati, Hamilton and Dayton 4½ per cent Income Bonds. (See Book I, Chapter IV, note i.)

[pp] The notable case of the Atlanta, Birmingham and Atlantic Railway Income 5s, 1930. An amount not exceeding 20 per cent of net earnings, or not over $100,000, in any one year, may be set aside until the fund reaches $300,000. This is called the "Income Bond Reserve Fund." It is held by the trustee for the benefit of the income bondholders.

[qq] In Potter's[45] study of income bonds, of the 29 issued after 1900, 8 were cumulative. Of the public utility income bonds 2 out of the 7 issued between 1900 and 1918 were cumulative and 10 out of the 27 issued since 1918.

---

[45] *Op. cit.*

troversies over the rights of the various parties concerned have come constantly to the courts. As the payment of their interest turns upon the computed net earnings, the whole problem resolves itself into a problem of accounting. Gross earnings and direct operating expenses may be easily determined, but net earnings can be fixed only after there have also been included the depreciation and maintenance charges and special reserves. These are inexact and flexible; they may be increased or decreased within wide limits by the management without breaking any canon of accountancy or the law. Money once paid to the holders of income bonds is forever gone, but money invested in the improvement of the property is retained by the stockholders. As the stockholders of the corporation and the holders of income bonds are usually different groups of people, there is a temptation to manipulate and misrepresent the operating accounts. The stockholders may decrease the published net earnings by heavy reserves for depreciation and large maintenance charges and in such ways create a secret increase of real capital at the expense of funds which should be paid to income bondholders.[rr] The controversy between a corporation and its income bondholders usually turns upon the accounting of depreciation, and the courts, through a long series of decisions, have made it clear that the maintenance of property and an adequate charge for depreciation are necessary elements in the use of any kind of material property.[47]

[rr] The Central of Georgia Railway had outstanding three issues of income bonds. For years the management, which held the stock closely, made excessive charges to maintenance, rebuilt the roadbed out of earnings, bought new equipment, and even supplied the money for operating a steamship line. All these expenditures were represented as legitimate expenses which should be deducted from gross earnings. As a result, the management was able to show that the income bond interest had not been earned until the time when the road had been rehabilitated and was in a position to pay dividends on the common stock.[46] A similar controversy raged between the income bondholders and the controlling interests of the New York Railways (New York City surface lines). Here the matter turned

---

[46] See Dewing, A. S., "The Position of Income Bonds, as Illustrated by Those of the Central of Georgia Railway," 15 Quart. Jour. Econ., 396 (1911).

[47] For discussion of legal question, Machen, A. W., Modern Law of Corporations.

The question is one of fairness, but it is not always easy of determination when the two interests are selfishly conflicting.[ss] In one notable case the responsibility was thrown upon the accounting system of the Interstate Commerce Commission,[tt]

---

largely on what were proper depreciation reserves and how far special reserves to care for contingencies were proper charges to earnings.

[ss] One of the most instructive of these controversies is that concerning the income bonds of the Mount Vernon-Woodberry Cotton Duck Company. The company had never been successful and after several reorganizations had succeeded in acquiring for its own account most of the original issue of $6,000,000 income bonds. A committee, representing $164,000, less than 3 per cent of the entire issue, sued the company on the ground that their interest should have been paid rather than that the mills of the company should have been maintained. It was clearly a "nuisance" suit. As was said at the time, the small minority could "delude their better judgment into the belief that they might harass the majority interest into paying them an undue value" (page 22). "They alternately weep over the alleged efforts of the corporation to maintain the efficiency of its plants, and deplore the alleged failure to sustain its good-will" (page 50). Whitridge v. Mt. Vernon-Woodberry Co. Answer of defendant. Fortunately, the court decided that the company was right in maintaining the physical values of its plants, rather than paying unearned income bond interest.[48]

[tt] Mindful of the possible trouble that would arise when the net earnings were held back from the income bondholders, certain recent income bond indentures have striven, by ingenious provisions, to avoid future controversies. For example, in the recent reorganization of the Atlanta, Birmingham and Atlantic Railroad, an income bond issue was created to fund the receivers' certificates. In the indenture it was provided that the income bonds "bear interest payable annually or semi-annually at such rate, not exceeding 5 per cent per annum, as may from time to time be declared by the Board of Directors, but such interest shall be paid only in case there shall be net income of the railway company available for that purpose, as the term 'net income' may be defined on the rules and regulations of the Interstate Commerce Commission, as from time to time in force. The interest on the income bonds shall not be cumulative. The Board of Directors may, however, reserve in any fiscal year from such 'net income' an amount not in excess of 20 per cent of the net income of the railway company, or in any event in excess of $100,000 in any fiscal year. The total amount so reserved and at any time unpaid, shall not exceed, exclusive of interest, $300,000 in the aggregate. All amounts so reserved shall be carried to a fund to be designated 'Income Bond Reserve Fund,' which shall constitute a corporate liability and carry interest at the rate of 6 per cent per annum, with semi-annual rests. The income bond reserve fund may be distributed to the income bonds in the discretion of the Board of Directors at any time and in any amount, but if in any fiscal year, while there shall be any amounts carried in the income bond reserve fund, there shall be any net income of the railway company in excess of (1) the amount required to pay the full interest upon the income bonds for such fiscal year, plus (2) an additional amount equal to 20 per cent of the net income of the railway company, but not in excess of $100,000, then any such excess (not exceeding the amount then in the income bond reserve

---

[48] Further discussion of the circumstances of this case, Dewing, A. S., Corporate Promotions and Reorganizations, Chap. XIII (1914).

and recent issues of public utility income bonds, when created, usually provide specifically for some system of adjusting differences over accounting.[uu] But such shifting of responsibility does not actually solve the problem as no commission—much less any iron-bound rules—can decide what are rigidly justifiable expenditures for proper and adequate maintenance.

Because of the likelihood of controversies and suits many students of the subject have been of the opinion that the issue of income bonds had been definitely discarded from American finance. It is with disappointment, therefore, that one notes their returning use during recent railroad reorganizations and their creation at the time of promotion. The temptation to placate impatient security holders by what is a bond in name

---

fund) shall be paid over by the railway company to the trustee, for distribution to the holders of income bonds, upon the next ensuing interest date, and the income bond reserve fund, upon such payment, shall be reduced by the amount thereof. Any and all amounts in such income bond reserve fund, with interest, at the date of maturity of the income bonds, shall be paid over to the trustee for the benefit of the holders of such bonds. No dividends shall be declared on any stock of the railway company of any class, unless, at the time of such declarations, all amounts in the income bond reserve fund shall be set aside for distribution to the income bonds, and no such dividends shall be paid unless the amount so set aside shall have been paid to the trustee, for payment to the holders of the income bonds upon the next succeeding interest date. Failure to make any such payments shall constitute default under the mortgage securing the income bonds, on the happening of which, the principal of such income bonds may become or be declared due."[49]

[uu] The Hudson and Manhattan Railroad Company's Adjustment Income 5s, 1957, mortgage contains the following provision: "The surplus income applicable to the payment of interest on the bonds issued hereunder shall be the surplus remaining after deducting from the gross earnings and income of the company from all sources the following items:

"(a) All expenses and charges for operation, maintenance, repairs, renewals, replacements, insurance, general expenses, losses, damage claims and all proper charges in respect of depreciation or obsolescence of tunnels, tracks, equipment, power plants and other properties, and all other charges against income in respect of its property or its operation or the conduct of its business, including all amortization properly chargeable to income under the rules or principles of accounting prescribed by the Public Service Commission of New York or the Board of Public Utility Commissioners of New Jersey, and any and all other sums which should properly be paid or appropriated, or set apart, or provided for out of income *to secure the proper, safe and adequate maintenance, equipment and operation* of the tunnels, lines of railroad and other properties of the company or *to preserve its earning capacity*, . . ."

[49] Printed letter of E. T. Lamb, dated Dec. 15, 1915.

but not in substance, seems to have been too great to resist. The possibility of future controversies does not trouble reorganization managers all too busy trying to settle present ones.[vv]

The possibility of trouble has caused the stronger corporations, which find themselves embarrassed by income bonds, either to acquire them for their own treasury [ww] or else to make special provisions for insuring the payment of interest,[xx] and finally the extinction of the principal.[yy] Another way of seeking to avoid controversy and trouble is to give the holders of income bonds a direct voice in the management of the corporation, just as if they were preferred stockholders.[zz] In the case of two large metropolitan traction income bond issues, the holders were given the power to elect one less than a majority

---

[vv] The reorganization of the St. Louis and San Francisco Railroad in 1916, in most points wise, involved the issue of two separate income bonds. The Adjustment Mortgage 6s, 1955, have cumulative interest, whereas the Junior Income 6s, 1960, have non-cumulative interest. Both are protected by "reserve funds."

Of nine small railroad reorganizations, consummated in the years immediately before the assumption of federal operation, five plans provided for income bonds. Past experience shows that this is merely sowing trouble for the future to reap.

[ww] Thus, a large part of the Charleston and Western Carolina Income 5s, 1946, is owned by the controlling Atlantic Coast Line.

[xx] An extreme case is that of the Elmira and Williamsport Railroad Income 5s of 2862. Clearly when issued they were a kind of anomalous preferred stock, since the interest was not to be paid unless earned and the principal not for upwards of a thousand years. But the road was acquired by the Northern Central Railway, which guaranteed the interest payment, and this Northern Central is itself an important subsidiary of the Pennsylvania Railroad, which has further guaranteed the interest. The result is that what purports on the surface to be an income bond of little value is really a fixed interest-bearing bond of very substantial worth. Among the outstanding income bonds, of railways, 5 out of 106 have their interest guaranteed by strong roads.[50]

[yy] Thus, the retirement of the Milwaukee, Lake Shore and Western Income 6s, of 1911, was provided for in the Chicago and Northwestern Railway General Mortgage 3½s, of 1987.

[zz] The income bonds of the Chicago, Terre Haute and Southeastern Railway are 5 per cent cumulative (after 1912) and the methods of computing earnings are very carefully defined in the mortgage. The holder of each bond of $1,000 par value is entitled to 10 votes, as if he held 10 shares of stock. This, however, is rare; for of the 106 issues of income bonds, outstanding in 1925, studied by Potter[51] 5 only provided voting privileges for the income bondholders.

---

[50] Potter, *op. cit.*

[51] *Op. cit.*

of the directors so long as the full income bond interest remained unpaid.[aaa]

Participating Bonds.—A last type of bond, more like a stock even than the income bond, is the so-called participating bond. Such an obligation participates, or shares, with the stockholders' earnings above the regular specified interest rates on the bonds. Whenever issued, the conditions of this participation are defined with great care. This type of bond has been used very seldom in American corporate finance. In fact there exists only one important case, that of the Union Pacific Railroad's Oregon Short Line Participating 4s, issued in 1903, and retired in 1905.[bbb]

One class of bonds remains unmentioned thus far—convertible bonds. But these partake largely of the nature of stocks, since it is hoped that the bondholder will consent to become a partner and not a creditor, if the enterprise can in the

---

[aaa] The Hudson and Manhattan Railroad Income 5s referred to before (note [uu] above), and the New York Railway Company's Adjustment Income 5s. The provisions of the latter mortgage, intended to protect the income bondholders, are very elaborate. They well illustrate the cumbersome legal subterfuges involved in trying to create a security which is neither a stock nor a bond. Nevertheless, in the autumn of 1918, there were two separate suits pending, on entirely different grounds, which the income bondholders had initiated in order to recover reserves which they contended had been illegally set aside from earnings.

[bbb] This case is invariably mentioned by financial students as an example of participating bonds for the simple reason that practically none other exists. The Union Pacific's credit was not as high in 1903 as later. In order, therefore, to dispose of an issue of $36,500,000 collateral trust 4 per cent bonds at a price greater than mere collateral trust bonds of the Union Pacific would warrant, the directors added the feature that the bonds could "participate" with the stockholders on any dividend in excess of 4 per cent declared on the deposited collateral—namely, the old Northern Securities Company's stock. Dividends on this deposited collateral were held up by litigation, and when participation seemed imminent, the bonds were called at 102½ per cent.[62]

Participating certificates were used as a temporary expedient in the reorganization of the Gulf, Florida and Alabama Railway. Lough, also, has dug up a case of participating bonds in the financial plan of the Anglo-Netherlands Sugar Corporation.[63] Yet, when all the cases have been cited it will be found that participating bonds are so rare in modern corporation financial practice that they, as a class, are of little or no significance.

---

[62] For details see Ripley, W. Z., Railroads, Finance and Organization, 164, 205 (1915).

[63] Lough, W. H., Business Finance, 160 (1917).

future be made to appear sufficiently attractive. They stand for an indirect method of increasing the stock or of creating an artificial market for the bonds by attaching to them a speculative element which is foreign to the fundamental conception of funded debt. For this reason, it seems more logical to consider convertible bonds as a separate and distinct form of security.

"Infinite Variety" of Bonds.—In surveying this subject it should be remembered that there may be any number of varieties of bonds combining one or more of the characteristics of various groups. It has been pointed out already that a joint guaranteed bond may also be a collateral trust or first mortgage bond; an income bond may be strengthened by a second mortgage or even a first mortgage to secure the payment of the principal when due, or again by the deposit of specific collateral. In fact there is no limit to the ingenuity which may be exercised in devising complicated forms of bonds designed to meet special circumstances. In some cases these forms are contradictory in spirit, as in the case of a first mortgage income bond, while in other cases they merely combine in a different way provisions which are usually found separate. The only requirement of a bond description that is of consequence is that the title shall imply exactly the security upon which the obligation rests. Any attempt to breathe new meanings into old names, or to give new names to old meanings for the purpose of confounding and deceiving the investing public, must be frowned upon as at best inexpedient. Such practices defeat their purpose as tending to destroy, at the outset, the spirit of mutual confidence which is the bed-rock foundation of credit in every form.

CHAPTER VII

EQUIPMENT OBLIGATIONS[a]

General Definition.—One class of credit obligations is so individual, and yet so important that it should be given a separate treatment. This includes the so-called equipment bond and car trust certificate, which, as a class, are spoken of as the equipment obligation. Securities of this type were confined to railroad finance until a year or two before the Great War, but are now being extended to other corporate enterprises having a large amount of capital tied up in salable machinery and equipment. Thus what was until recently merely an incidental financial expedient now bids fair to play an important rôle in American corporate finance.

Broadly speaking, an equipment obligation is a loan of money based on a direct lien on a specific lot of rolling stock. But, as a class, such obligations cannot be defined precisely because of the varying conditions usually required to render this lien direct and explicit, together with the cumbersome restrictions necessary to maintain a reasonable equity behind a lien on heterogeneous property forever in motion and subject to rapid depreciation. Equipment obligations are peculiar in form, in security, and in economic position. They may be bonds similar to other railroad bonds, they may be certificates of participation in a contract to purchase and hold a specific lot of rolling stock,

---

[a] Large sections of this chapter were printed originally under a similar title.[1] There is an excellent study of the whole subject, entitled "Equipment Obligations," by Kenneth Duncan (1924). This comprises an exhaustive and painstaking examination of all phases of the subject—an example of modern scientific research in the field of corporation finance. The book is referred to frequently in the following pages, and it should be consulted by any student who cares to pursue the subject further. Appended to the book is the most exhaustive bibliography on equipment obligations in print.

---

[1] Dewing, A. S., "Railroad Equipment Obligations," 3 Am. Ec. Rev., 353 (June, 1917).

or they may be shares in a permanent association.[b] They are secured by tangible property, yet a kind of property which is movable from place to place and declines in value more rapidly than any other used as a basis of corporate obligations. They rest on the general credit of the corporation using the equipment, yet this general credit has little to do with determining their investment position, which is as a whole stronger than that of any other form of corporate security. Their legal status has never been fully determined by the courts, yet their legality has never been seriously questioned and they have been given priority over first mortgage bonds in the ultimate test of relative investment strength. With all these contradictions, it is clear that only the most general statements can be rigidly applied to the group as a whole, and that innumerable exceptions and modifications crop out as attempts are made to draw definite and straight lines of demarcation. It is clear, too, that equipment obligations constitute an extremely complex, but extremely interesting group of corporate securities.

portant

Origin.—The first recorded instance of anything like the modern form of equipment obligation was in 1845. The Schuylkill Navigation Company contracted for the purchase of barges to be partly paid for from borrowings. The construction of the barges was to be under the control of the board of managers of the company but "the ownership was to be vested in three trustees, to be held as security for the payment of the

---

[b] There have been a number of associations, with permanently subscribed capital, organized for the purpose of buying and leasing equipment to railroads for shorter or longer periods of time.[2] The practice, however, has not become general for at least two very good reasons. The railroads themselves have found that they could borrow by the use of their own equipment obligations quite as cheaply as they could hire the equipment of the permanent association, with the added advantage that they would own the equipment in the end. Moreover, the associations had no economical means for repairing and maintaining equipment widely scattered over large areas.

At the present time (1926) there is one comparatively new organization of this general character—the National Railway Service Corporation.

---

[2] For illustration, the old "Iron Car Trust," 82 Chron. 1297 (1906).

loan."[3] After the board of managers had built the barges, they transferred them to the trustees who in turn leased them back to the navigation company. Cars as well as barges were afterward included and the trustees issued bonds bearing interest and payable serially in ten annual instalments. The plan was subsequently modified so as to permit the trustees to sell the equipment and redeem the bonds with the proceeds. This case seems to have been sporadic although almost identical in form with the issue of equipment obligations at the present time under the so-called Philadelphia plan.[c]

The Railroad Car Trust.—The modern form of car trust association is to be traced to the Railroad Car Trust of Philadelphia created in 1868 for the purpose of furnishing equipment to the Lehigh Coal and Navigation Company. The idea arose, according to Rawle, in the mind of the president of the road, but the legal details, extremely perplexing in their bearing, were worked out by one Charles Gibbons, a Philadelphia attorney.[d] Presumably their origin is to be attributed to the efforts of this lawyer to surmount a legal obstacle. The Pennsylvania courts would not allow that a "conditional sale" of the moving equipment by the trustee to the road should serve as the basis of an obligation as against a third party creditor. That is, the trustee could not hold unquestioned title to the

---

[c] This Schuylkill Navigation Company case is distinctly the best known instance although it was by no means the only case of leasehold equipment bonds or certificates before 1850.[4] In 1852 the legislature of Pennsylvania enacted legislation that virtually legalized the Schuylkill Navigation bonds in spite of their obvious evasion of the provision of Pennsylvania law that conditional sales of movable goods were of limited validity.

[d] In February, 1896, Oliver Adams, writing to the *Commercial and Financial Chronicle* regarding the death of his father, William Adams, which occurred in England on January 31, 1896, said, "In 1873 he, in conjunction with myself, inaugurated the system of equipping railways in the United States with rolling stock on what is now known as the car trust plan." Although Mr. Adams did much to further the idea he cannot be considered the first in the field.[5]

---

[3] Rawle, F., "Car Trust Securities," 8 Am. Bar Assoc. Rep. 277 ff. (1885). This was the first thorough study of the subject and remains the best source for the early history of equipment obligations.

[4] See also Strong v. Taylor, 2 Hill 326 (1842). Rawle describes the case quite fully (Rawle, F., 8 Am. Bar Assoc. Rep. 277 [1885]) and sections of this description are quoted by Duncan, K., "Equipment Obligations," 11.

[5] Vol. 62, page 259. Also cited Vol. 80, page 1760 (1905).

ultra

equipment, even though the title remained in his name, if he sold it to the road on the usual instalment plan.[e] Accordingly he adopted the legal subterfuge of creating an artificial owner who should hold absolute ownership of the equipment until it had been entirely paid for by the railroad, although the latter could have the use of it in the meantime under a lease. In other words, the railroad would not acquire even a semblance of a title to the equipment until its entire cost had been paid.

Such a legal subterfuge has proved sound, provided it involves no intentional deceit nor injustice. As advanced by the Supreme Court[9] long ago in one of its few adverse decisions: "Contracts by which railways, insufficiently equipped with rolling stock of their own, lease or purchase under the form of a conditional sale such equipment from manufacturers are not of uncommon occurrence, and when entered into bona fide for

---

[e] It is, apparently, well-established in the common law of Pennsylvania[6] and apparently in that of a few other states[7] that a sale of movable goods cannot be made on the condition that the seller can hold his title to the goods, until they are paid for, in preference to the attachment or claim of a third party against the person to whom the goods were actually sold and delivered. In other words, stripped of legal verbiage, the doctrine held in Pennsylvania and one or two other states was this: If a manufacturer of railroad cars sold movable equipment to a railroad on the "partial payment" or instalment plan under the condition that if the payments were not completed, as agreed upon—and the railroad got into financial difficulties so that bondholders under a mortgage (with the after-acquired property clause) or some other creditor should attach any property of the railroad that they could lay hands upon—then the car manufacturer could not claim and take possession of his equipment to reimburse him for his unpaid balances. Of course, on this interpretation of the law no car manufacturer would care to sell expensive equipment to railroads on partial payments especially if the later instalments were to be delayed some years. And this would apply with regard to railroads located in other states than where the Pennsylvania law applied because the cars would wander into jurisdictions where the law might apply and the judicial principle of *lex rei sitae* might emasculate the manufacturer's right to reclaim the property even though this right was valid in the states where the original contract was made.[8]

---

[6] Leading cases Clow v. Mathiot, 5 Serg. and Rawle 275 (1819); Martin v. Mathiot, 14 Serg. and Rawle 214 (1826); Lehigh Coal, etc. v. Field, 8 Watts and Serg. 232 (1844); Brunswick, etc. v. Hoover, 14 Norris 508 (1880); Peek v. Heim, 127 Pa. 500 (1889).

[7] It has been pointed out that the Pennsylvania principle applies in Illinois (Brundage v. Camp, 21 Ill. 330 [1859]; upheld in Harkness v. Russell, 118 U. S. 663 [1886]), in Louisiana (Barker Asphalt Paving v. St. Louis Cypress, 121 La. 151 [1908]), and possible in Colorado, Maryland and Kentucky.

[8] For further discussion of the legal aspects of equipment obligations see page 189 and the references given there.

[9] McGourkey v. T. and O. C. Ry., 146 U. S. 536 (1892) quotation at page 551.

the benefit of the road have been universally respected by the courts."[f]

Extent of Present Use by Railroads.—Although conceived in the beginning as a means of enabling new [g] or impoverished roads [h] to acquire equipment when their own borrowing ca-

---

[f] This is one of the most interesting and illuminating cases that bear directly upon equipment obligations. A syndicate, composed of directors of a railroad already covered by two mortgages, purchased equipment in the name of the road, paying for it partly out of their own funds—represented by equipment obligation certificates—and partly out of funds of the road held in the railroad's own bank account. The directors, holding these certificates, sought to hold the equipment, ostensibly covered by them, as against the bonds previously issued under one of the mortgages containing an after-acquired property clause. The majority opinion of the court held that this could not be done, alleging, apparently, constructive fraud on the part of those concerned. Yet it is to be observed that although the entire evidence indicates that the lease of equipment was resorted to as an attempt to perpetrate a fraud on mortgage bondholders and other creditors, nevertheless, the Chief Justice of the United States Supreme Court and another justice dissented on the ground that even constructive fraud did not invalidate the priority of the equipment trust lien in favor of a third party. The sentences quoted above from the majority opinion indicate that the Supreme Court recognized, barring fraud, the unquestioned strength of the equipment trust obligations issued under the form of a lease. Unfortunately, however, at the time the decision was handed down it was interpreted among writers on finance as seriously affecting the presumptive strength of equipment obligations issued under the lease form.[10]

From this case it is unmistakably clear that if the equipment obligations issued under the lease form are to enjoy the full protection of the legal subterfuge contemplated there must be no semblance of fraud.[11]

[g] Stated directly as late as 1894, by Davis and Browne, *Op. cit.*, as the chief reason: "Inasmuch as a very large number of railroads are not, at the time of their organization, in a condition to purchase a sufficient amount of rolling stock outright, and as, at the same time, manufacturers and owners of rolling stock would often hesitate to accept the obligation of a railroad of perhaps doubtful future, even when secured by collateral, in payment for cars and engines, some other security or means of protecting the manufacturer became necessary."

[h] The saving to impoverished roads with poor credit is strongly emphasized by Ripley.[12] This is also brought out clearly by the tables given on pages 186-187. In July 1924, the Rutland Railroad sold equipment obligations of short maturities on less than a 5 per cent basis. For forty years and more the Rutland Railroad has suffered from its chronically bad credit.

---

[10] See 56 Chron. 181 (1893). The case is reviewed in Davis and Browne, Car Trusts in the United States, 1894, and more recently in Duncan, Equipment Obligations, 140 (1924).

[11] Besides the McGourkey case reviewed above see also Central Trust Company v. Hiawasser Co., 2 U. S. App. 1 (1891) reviewed by Duncan, Equipment Obligations, 138. It is clear that the directors of the railroad should not personally derive any benefit from the subterfuge of the lease that might be construed as defrauding creditors. Drury v. Cross, 74 U. S. (7 Wall.) 299; Twin Lick Oil Co. v. Marbury, 91 U. S. 587; Wardell v. A. P. Rd. Co., 103 U. S. 651. Also Harris v. Youngstown Bridge Co., 90 Fed. 322; 93 Fed. 355.

[12] Ripley, W. Z., Railroads, Finance and Organization, 171 (1915).

pacity was small, equipment obligations are now used by the strongest roads in the country as a means of borrowing to better advantage than through the issue of general mortgage bonds. The growth of their use was slow at first because associated with emergency financing. By 1890 the total outstanding volume of equipment obligations was less than $50,000,000, while in 1899 the amount had declined to approximately $42,000,000.[13] Due largely to the use of the equipment loans by the strongest roads in the country, the total of such obligations rose with great rapidity between 1902 and 1905—from less than $90,000,000 to approximately $200,000,000.[14] Since then the practice of financing separately the purchase of equipment has become common. At the beginning of 1915, the roads of the United States and Canada had outstanding over half a billion dollars of equipment obligations,[15] an amount over twelve times as great as that in 1899. During the five years from 1915 to 1920 the amount of equipment obligations outstanding declined somewhat, but again increased in 1920 owing to the Government issues. With the gradual fall of interest rates from 1922 to 1925, coupled with the continued relative prosperity of the railroads the amount of equipment obligations continued steadily to increase.

At the end of 1925 there were outstanding probably over one billion, one hundred million par value of equipment obligations in the United States and Canada, including the obligations of car lines and special car associations.[i] These are di-

---

[i] All writers who have attempted exhaustive tabulations or detailed estimates of equipment obligations have been confronted with serious difficulties. It is clear that the amounts reported by the Interstate Commerce

---

[13] In 1890, $49,478,215 and in 1899, $42,058,348. These figures are those of the I. C. C. adjusted by the editor of the *Commercial and Financial Chronicle*, 81 Chron. 1760 (1905). They include the Canadian Pacific, but not the other Canadian roads. The equipment obligations of the Canadian Pacific alone amounted to approximately $2,000,000 for both years.

[14] 81 Chron. 81 (1905). Same basis as previous computation.

[15] Coggeshall and Hicks, New York bankers, computed with great care the outstanding equipment obligations as of December 2, 1914, as $519,000,000. Freeman and Company, New York, also published a detailed manual giving the outstanding trusts, as of Jan. 2, 1917. This was republished at intervals and the successive editions represent exhaustive summaries of individual outstanding equipment trusts.

vided among many roads, those of strong credit, like the Pennsylvania and New York Central systems, and those of weak credit, like the Rutland and Wheeling and Lake Erie. In fact there seems to be no correspondence, at the present time, between the credit of a road and the amount of equipment obligations employed for financing its rolling stock. A few roads, like the Union Pacific and Northern Pacific, the Great Northern and Atchison, Topeka and Santa Fé, issued equipment obligations in considerable amounts before 1900, then discontinued the practice until recently when practically all roads participated in the Government issues of 1920.[18] Nor can there be any sectional generalizations, although the western roads as a class have shown the least inclination to issue such obligations, and the coal roads in eastern trunk line territory perhaps the most. In the end it is a question of special policy.[19]

Use by Utilities and Industrials.—The custom of issuing various forms of rapidly maturing obligations to pay for new equipment, having been firmly established among railroads, has been adopted by other corporations. After steam railroads, the most frequent use is by electric traction roads.[j] Following

---

Commission are understated;[16] yet when one comes to make an exhaustive tabulation there are serious questions of omission and inclusion.[17] A graph of outstanding amounts, according to the Interstate Commerce Commission, gives an idea of the relative amounts of issue, even though the amounts are not correct.

[j] Owing to the low state of the credit of traction companies a considerable variety of traction equipment obligations have been created from time to time. The Hudson and Manhattan Railroad Company (New York City) and the Connecticut Company (traction subsidiary of the New York, New Haven and Hartford Railroad) have issued equipment obligations

---

[16] In the early reports the Interstate Commerce Commission did not include the obligations of special car associations—the railroads assuming the strict legal construction of the lease that the trustee and not the railroad owned the equipment and that, therefore, the former and not the latter created the obligations. As late as 1915 Coggeshall and Hicks tabulated the outstanding obligations as $519,000,000, whereas the Interstate Commerce Commission gave only $371,000,000. It is probable that the Interstate Commerce Commission is not including the special car trusts, and car companies nor does it include the obligations of the Canadian roads which are held in the United States along parallel lines with the equipment obligations of our own roads.

[17] Duncan, K., Equipment Obligations, pages 22 to 27, summarizes the situation as of 1922.

[18] For tabulation of Government issues see 115 Chron. Ry. and Ind. Sup. 5 (1922). Also a booklet published by Freeman & Company, Car Trust Securities, N. Y., describing table, also given in Duncan, K., Equipment Obligations, 337.

[19] For extended discussion covering policies of different roads see 55 Rail. Age Gaz. 1506; 56 *Ibid.* 668.

the same idea other corporations have mortgaged movable equipment and issued certificates of debt or similar securities against the mortgage and the equipment.[k]

In one case, that of a large mail-order house, rapidly maturing "shares" have been issued on the security of a warehouse. At the time these shares were sold they were alleged to be like equipment obligations.[l] While similar in the fact that they mature faster than the security depreciates, the differences are so great that the use of the idea is productive only of confusion, bordering on misrepresentation.

Reasons for Use by Railroads—Economy.—There are various reasons that have led railroads to use equipment obligations, but two are of especial importance—economy and the

---

directly. The Electric Railway Equipment Corporation was organized by a large car factory, acting with the General Electric Company and the Westinghouse Company, in order to acquire and sell equipment obligations of traction companies taken as partial payment for cars. In a few instances a separate "Car Equipment Company" has been organized, within a traction company, in order to create an equipment trust and thereafter sell the securities of it. As a whole, however, these traction equipment obligations have not been much used owing to the odium attaching itself to all forms of traction security, quite irrespective of the conditions of their issue.

In comparison to steam railway equipment obligations those of traction companies do not have as good an investment record. Defaults have frequently followed receiverships; and the equipment is not so readily salable.

[k] Oil companies—like the General American Tank Car Corporation's 5 per cent certificates of 1917, 6 per cent certificates of 1918, and 7 per cent certificates of 1920; the Chickasaw Refining Company's 8 per cent certificates of 1920. The Empire Gas and Fuel Company—a subsidiary of the Cities Service Company—has the Empire Tank Line Company, with its own equipment obligations.

Marine companies—like Green Star Steamship Corporation equipment mortgage 7 per cent notes of 1919; the Grace Steamship Company's 6 per cent mortgage notes of 1919.

Steel companies—Lackawanna Steel Company's 5 per cent car trust certificates of 1916 and the Bethlehem Steel Company's 7 per cent certificates of 1920.

[l] Printed on the bankers' circular offering $750,000 Montgomery Ward Warehouse Associates 6 per cent Preferred Shares (January, 1914) occurs the following:

"The security of the investment is like that given by a Railroad Equipment Trust, in that the margin increases year by year, the property behind the issue is essential to the conduct of the business of the Lessee Corporation, and that Corporation will eventually acquire entire ownership. In this case, however, the property is real estate, not rolling stock, and the margin at the start is larger than that usually given by Railroad Equipment Trusts."

avoidance of the after-acquired property clause. Subordinate reasons call for little comment as the present rapid increase of equipment loans never would have occurred had the railroads not found it possible to borrow more cheaply in this way than by the issue of junior securities.

Most railroads long ago mortgaged to the full their main lines, so that the only available basis of credit remaining is an inferior lien. The securities based on this inferior lien would naturally command a low market price—another way of stating the fact that the new money obtained from the sale of these junior securities would cost the road a high rate of interest. When at first the issue of equipment obligations was looked upon as a sign of weakness investors avoided them as an inferior makeshift security. The rates paid by the carriers were, therefore, no lower than what would be paid on the junior securities. In fact, as already noted, the early equipment obligations were issued almost exclusively to give new or impoverished roads equipment, and the low credit of the road was carried over to the equipment obligations. All issued before 1885, bore high rates of interest. For illustration, the Ohio Central Car Trust created in 1880 bore 8 per cent interest. Rates equally high were by no means uncommon prior to 1885. But gradually banks and investors have come to realize that equipment obligations constitute a special class by themselves to which the ordinary canons of railroad credit do not apply. Further, the strength given such securities by the early court decisions has, too, so increased the demand that the rates at which equipment issues are taken by the public now compare favorably with those of any other single class of corporate securities.

Two distinct attempts have been made to compare the market yields of equipment obligations with those of other railroad bonds. One comparison was made, as of March, 1916, and printed in the first edition of this book.[20] This showed the following results:

---

[20] Financial Policy of Corporations, Vol I, 95 (1920).

	Average Yield of Equipment Obligations	Average Yield of Premier Securities	Average Yield of General Credit Securities
Roads of Very Strong Credit	4.137	4.188	4.536
Roads of Medium Credit..	4.253	4.613	5.067
Roads of Poor Credit.....	4.54	5.04	6.28
Average for Solvent Roads.	4.310	4.614	5.294
Roads in Receiver's Hands.	5.47	5.83	.....

A similar study was undertaken using the quotations of July, 1925, as a basis.[21] Obviously the credit of the various roads had changed both relatively and absolutely in the intervening ten years. But the classification of the solvent roads into three classes—strong, medium, and poor credit—was retained. Owing, however, to the general improvement in the financial condition of our American railroads there were only two important roads in the hands of receivers. This class, therefore, shows results of but little general significance.

	Average Yield of Equipment Obligations	Average Yield of Premier Securities	Average Yield of General Credit Securities
GROUP A—ROADS OF STRONG CREDIT:			
Pennsylvania..........	4.83	4.30	4.92
Chicago & Northwestern.	4.92	4.75	5.09
Atlantic Coast Line.....	4.97	4.45	4.87
Delaware & Hudson....	5.10	4.75	5.00
Southern Pacific........	4.78	4.92	4.96
Northern Pacific........	4.93	4.77	5.30
New York Central......	4.86	4.49	4.82
Norfolk & Western.....	4.70	4.51	4.75
Union Pacific..........	4.69	4.54	4.66
Average for Roads of Strong Credit........	4.86	4.60	4.93
GROUP B—ROADS OF MEDIUM CREDIT:			
Baltimore & Ohio.......	4.92	4.77	5.31
Cleveland, C. C. & St. Louis...............	4.67	4.88	5.14
Texas & Pacific........	5.10	4.96	5.81
Chesapeake & Ohio.....	4.86	4.83	5.04
Buffalo, Rochester & Pittsburgh...........	4.81	4.83	5.35
Hocking Valley.........	5.01	4.99	4.95
Southern Railway......	4.73	4.83	5.57
Average for Roads of Medium Credit.........	4.87	4.87	5.31

---

[21] Baker, A. E, Railroad Equipment Obligations, Harvard Graduate School of Business Administration (1926).

GROUP C—ROADS OF POOR CREDIT:			
New York, Ontario & Western	4.75	5.92	6.25
Seaboard Air Line	5.43	5.51	6.34
St. Louis Southwestern	5.12	4.87	5.90
St. Louis-San Francisco	5.27	4.90	5.76
Boston & Maine	5.35	6.41	7.61
Georgia Southern & Florida	4.90	5.10	6.84
Ann Arbor Railroad	5.48	5.95	6.10
Wheeling & Lake Erie	5.12	5.19	6.10
Average for Roads of Poor Credit	5.17	5.48	6.36
Average for All Roads	4.97	4.97	5.50

From both of these studies it is clear that a railroad can borrow more cheaply by means of equipment obligations than by using its general credit; and frequently its equipment obligations can be sold to better advantage than its senior bonds.

Another study [22] of the issuing yields of different types of securities showed that, at the time of issue, the average rate of yield was more constant for equipment trust obligations than for first mortgage bonds. Over a period of years, however, the issuing yield for equipment obligations was slightly lower than that for railway first mortgage bonds.[m]

Avoidance of After-Property Clause.—The second advantage concerns the after-acquired property clause. Bridges, terminals, and branch lines are frequently built by subordinate corporations so that the new property may not pass, automatically, under some old mortgage which contains a clause to the effect that all property subsequently owned by the road becomes subject to it. In the same way, the retention of the title to

---

[m] The comparison is of interest:

Year	First Mortgages	Equipment Trusts
1914	4.38	4.73
1916	4.96	4.51
1922	5.20	5.31
1923	5.21	5.38
1924	5.16	4.96
1925	5.24	4.92
Average	5.03	4.97

[22] Collett, J. P., Issuing Yields of Bonds, Harvard Graduate School of Business Administration (1926).

the rolling stock by the trustee of an equipment obligation holds it back from the lien of any such prior mortgage, and makes it possible to use the rolling stock as the basis of its own purchase-money indebtedness.[23]

In addition to these two main reasons there are, as has been said, others which sometimes influence the issue of equipment obligations. The tax laws of a state may subject bonds to a personal property tax, while the equipment certificates, being certificates of part-ownership in physical property, escape. In fact one of the reasons for the large use of equipment obligations in Pennsylvania is that when the legal instruments securing them are adroitly worded the interest on them escapes the Pennsylvania tax laws. But the lawyers drawing the various documents must carry out the letter of the subterfuge. The attention of the writer was drawn to an instance in which the lawyers slipped up in this particular and called the payments by the railroad "interest" instead of "rentals." This verbal error in the letter of the documents rendered the holders of these particular equipment obligations subject to the Pennsylvania tax. All things considered, however, the exact status of equipment obligations under the tax laws of Pennsylvania or any other states is open to serious doubt.[24]

General investment market conditions may also influence the question of the issue of equipment obligations. The bankers of the road may believe there is a better demand for the road's obligations with banks than with private investors, and equipment obligations are especially favored by banks. Still again the car and locomotive manufacturers are often willing to accept an equipment obligation for part or for nearly the whole payment of railway purchases, on cheaper terms than the railroad can obtain by selling its own bonds and using the proceeds to reimburse the manufacturers. This is especially true at a time of slack business activity combined with high interest rates.

---

[23] For discussion of the legal aspects see page 189.

[24] For further discussion of this see Duncan, K., Equipment Obligations, 223.

Legal Status—Three Forms.—There is considerable confusion regarding the legal status of equipment obligations, their nomenclature, the connotation of the different terms used to describe them and the relative investment position of obligations issued under varying legal forms.[n] Fundamentally all equipment obligations are direct liens on rolling stock and their security ultimately rests on the resale value of locomotives, cars, and other forms of railway moving equipment. The differences arise from the different legal forms observed at the time of their issue. And in general there are three such forms —equipment obligations issued under the so-called Philadelphia plan of a lease,[o] those issued under a conditional equipment sale to the railroad, and finally the equipment mortgage bonds or note issued directly by the railroad in its own name.[p] The term "New York plan"—nobody can explain the origin of the term—is always used to designate equipment mortgage bonds

---

[n] This confusion is apparent in the minds of most bankers and writers on the subject. An editorial in the Commercial and Financial Chronicle succinctly reviews the confusion in names, and attempts to distinguish the essential differences in form (82 Chron. 361 [1906]). Duncan, K., Equipment Obligations, 28 (1924), recognizes their difficulty, but in seeking to clarify the confusion, attempts to efface the fundamental difference between the issue under a lease—the Philadelphia plan—and the issue under a conditional sale agreement. See subsequent discussion and notes.

[o] Certain specific reasons explain the association of equipment obligations with Philadelphia and Pennsylvania. (1) They originated among Pennsylvania corporations. (2) The conditional sale is not a legal basis for direct equipment obligation. (See page 192.) (3) Car trust certificates, although having mortgage bond security, yet as certificates of part ownership in physical property, have been considered non-taxable when held by Pennsylvania holders. (The best legal opinion now is that this question has never been finally adjudicated.) Great care must, however, be exercised in carrying out the legal fiction that the issues represent physical property, rather than notes. (4) The location in Pennsylvania of large equipment companies. (5) The example of the Pennsylvania Railroad, the Reading, the Baltimore and Ohio, the Norfolk and Western and the Chesapeake and Ohio—the securities of which are held to a considerable extent by Pennsylvania investors. This reason, however, has been effective only a short time.

[p] Duncan (page 122) suggests that elsewhere[25] the author has confused sale agreements, in which the title is reserved by the trustee, with ordinary equipment mortgage bonds or notes. This criticism is justified; and the above *Gallia in tres partes divisa est* treatment is substituted for my previous two-part division largely because of Duncan's illuminating discussion of the conditional sale.

---

[25] Dewing, A. S., "Railroad Equipment Obligations," 7 Am. Ec. Rev. 353 (1917); Financial Policy of Corporations, Vol. I, 99 and 101 (1920).

or notes and is now generally used to include, also, equipment obligations issued under a conditional sale agreement.

Philadelphia Plan; a Lease.—As the Philadelphia plan is at once the most individual and the most complex, giving rise to the strongest kind of railroad obligation, it will be described first in considerable detail.

The Philadelphia plan of issuing equipment obligations, as it has now been crystallized into more or less regular practice, consists of a device whereby the railroad makes an initial payment towards the purchase of a definite number of cars or locomotives, but does not acquire the title to the property until it has met the unpaid balance. The road uses the equipment under a lease, but never obtains even conditional ownership until it has paid the entire purchase price. The procedure is made clear by observing the steps of a typical case. A railroad desires to acquire some new cars. It enters into a contract with the manufacturer, who builds the cars according to the specifications of the road. When the equipment is ready for delivery, the road then enters into an elaborate agreement with some individual, trust company, or association created for the purpose—the legal owner, as it were—under which the latter shall acquire and pay for the equipment nearing completion and lease it to the road. In a few rare cases there is no intermediate legal owner. In such cases the manufacturing company leases the equipment to the road—as in St. Louis and San Francisco R. R. Series M (1907) the Pullman Company leased the cars directly to the railroad.

The individual, trust company, or association becomes the actual and legal owner of the equipment, not merely the trustee. About one-tenth of the necessary money is supplied by the road and the other nine-tenths is obtained from bankers and ultimately from investors through the sale of participation certificates based on the security of the equipment itself and the pledge of the lease.

This lease involves at least five provisions. First, the railroad or lessee promises to pay the owners or lessors each year an amount of money necessary to meet all the interest on the notes or participation certificates then outstanding, together with a certain instalment on the unpaid portion of the entire issue. Secondly, the railroad promises to keep the equipment repaired and insured, and also to replace any cars burnt or destroyed. Thirdly, the railroad promises to put a name plate on each car describing it as the property of the owner or lessor and to use no lettering so as to imply that the road is itself the actual and legal owner of the rolling stock. Fourthly, the road promises that, in case it fails to meet any part of its obligation, especially if it fails in its payments, it will assemble at one point the entire equipment covered by the lease and deliver it over to the lessor or owner. Lastly, the lessor agrees that on the payment of the last instalment it will execute a bill of sale to the road conveying to it the title of the rolling stock. From this description it is clear that the whole purpose of the agreement is to avoid giving the railroad even a semblance of a title to the equipment while it is using it and it is still unpaid for, but at the same time provide an arrangement which shall enable the road to pay gradually for it and ultimately to own it. The security is never the credit of the road but the merchantable value of the rolling stock itself; yet the road has the full and free use of the rolling stock while it is paying for it as if it were its own.[26]

There has always been some confusion in regard to the exact status of the legal owner or trustee. During the earlier period of equipment obligations, associations of officers or employees of the railroad would be formed for the purpose of holding the equipment. Subsequently a single individual, usually a banker, acted in this capacity. He would assign the lease, not the equipment, to a trust company. Later still a trust company has assumed the rôle of owner and lessor. In rare cases a permanent association maintains a continued and separate existence, owning and leasing equipment and issuing its own certificates in successive car trusts. The old St. Louis and San Francisco Railroad Company used such an equipment company to finance certain of its car trusts. Several of the oil companies have car owning subsidiaries which function in this manner. Under any circumstances, however, the problem arises in regard to the continuing duties of the trustee or owner, especially with reference to the checking up of the equipment while the certificates remain outstanding. The Committee on Railroad Bonds and Equipment Trusts of the Investment Bankers Association found that trustees had been negligent in insisting that the provisions of the lease be fully lived up to. The committee suggested certain reforms.[27] The suggestions on the part of the committee are excellent, but its effects are likely to be frustrated by one difficulty: Who shall pay the trustee for continuously checking up the trust?

---

[26] Forms representing different types of lease agreements under which equipment obligations of the so-called "Philadelphia" plan are given as Appendices III, IV, and V of Duncan, Equipment Obligations (1924). The first example, Appendix III, represents an old form of Car Trust association, reproduced from 82 Chron. 873 (1906). A clear account of the issue of certificates is given in 82 Chron. 839 (1906); Duncan, Equipment Obligations, 42 ff. (1924), also gives a summary.

Conditional Sale Plan.—The second class of equipment obligations is that issued under a conditional sale.[28] Under this arrangement the manufacturer contracts directly with the railroad for the sale of the equipment under an instalment or deferred payment plan by which the legal title is reserved by the manufacturer or a trustee appointed for the purpose until all the deferred payments, with the interest on them, have been met. The manufacturer or trustee then issues its bonds, or notes, or certificates—whichever they may be called—representing beneficial interests in these deferred payments. At the same time the railroad agrees to be bound by conditions similar to those which protect the holders of Philadelphia plan certificates until such time as the last instalment has been met. In brief, these conditional sale obligations are the same as the Philadelphia lease obligation except that in the one case the railroad does not get even a semblance of a title to the equipment until it is entirely paid for, whereas in the other it gets whatever shadow of a title the conditional sale confers upon it.

---

[27] Chamberlain, L., gives an outline of these in a popular article. He also summarizes certain clauses that should be present in an equipment trust agreement. (18 Moody's Magazine, 135.) See also Investment Bankers' Association of America, Bull. 2, 15; 3, 12; 4, 4; 8, 15. An outline of the suggested reforms is given in Duncan, Equipment Obligations, Appendix 1, 269.

[28] Duncan, Equipment Obligations, Appendix II, reproduced from 82 Chron. 874 (1906), gives an example of such an agreement. Many of the agreements covering the sale of obligations secured by equipment purchased from the Government in 1920 are of this type.

Duncan devotes considerable space to the legal status of these conditional sale agreements, and the securities issued under them, both in the light of the common law decisions and the state statutory enactments. His contention is that a series of decisions has made it clear that courts are inclined to construe all these various contracts—leases, conditional sales, and mortgages—as absolute sales to the railroad, conditioned by a purchase money lien back to the seller or trustee, unless there is unequivocal proof that the legal title has not passed to the railroad. The mere outward form of the legal instrument does not tell the whole story; it is the intention of the contracting parties.[29] This is probably true, and it shows on the one hand the necessity of clear and unequivocal language in the wording of the contract and, on the other, the utmost care with which all semblance of fraud should be avoided. In point of history, however, it should be remembered that these conditional sale contracts were not legal under Pennsylvania and certain other state court decisions[30] and have been used only in recent years after state statutes have been enacted to clarify their use and to protect holders of equipment obligations issued under them. At best they are an outgrowth of the original Philadelphia car trust certificates and represent a distinct emasculation of the strength of the earlier obligations. The road has some kind of a provisional title to the equipment, whereas in the Philadelphia plan it has not the slightest semblance of a title. Therein lies the strength of the Philadelphia form of obligation, a strength which is shared by the conditional sale obligations only by a kind of indirection.

---

[29] A series of Federal court decisions support this view. Hervey *et al.* v. R. I. Loco. works, 93 U. S. 664 (1876); Heryford v. Davis, 102 U. S. 235 (1880); the nature of the contract is not, the Court said "in any name which the parties may have given to the instrument and not alone in any particular provisions it contains, disconnected from all other, but in the ruling intention of the parties, gathered from all the language they have used. It is the legal effect of the whole that is to be sought for. The form of the instrument is of little account." 93 U. S. at page 244. Hart v. Barney and Smith Mfg. Co., 7 Fed. 543 (1881); Harkness v. Russell, 118 U. S. 663 (1886); Chicago Ry. Equip. Co. v. Merchants Bank, 136 U. S. 268 (1889); Contracting, etc. Co. v. Continental Trust Co., 108 Fed. 1 (1900); Met. Trust Co. v. Rd. Equip. Co., 108 Fed. 913 (1901).

[30] See notes 6 and 7 above.

Equipment Mortgage Plan.—The third kind of equipment obligation is that of an ordinary bond or note secured by a chattel mortgage on the equipment. The railroad company acquires title to the property, conveys it "in trust" to a trustee, and equipment mortgage bonds or notes are certified by the trustee in the same manner as mortgage bonds or notes secured by real property. Equipment mortgage bonds or notes of this kind are of comparatively recent occurrence. They have been used by roads of very strong credit—barring the Pennsylvania—during the last fifteen years when the credit of the road, alone, established a market price for the equipment mortgage bonds as low as if they had been issued under the lease or conditional sale. They have also been issued by oil companies, representing a mortgage lien on railway equipment.[q]

---

[q] One cannot help regretting that there is not a clearer understanding of the legal principles and investment values underlying these three types of issue. Their relative merits, as investments, will be discussed later, but irrespective of nice legal distinctions the attempt, on the part of railroads or bankers to masquerade equipment mortgage bonds as obligations issued under the Philadelphia or lease plan is misleading and unfortunate.

If issued under the straight Philadelphia plan, the obligation is not that of the railroad (although it may be and is often guaranteed by the road), but merely of the trust estate of the equipment. The trustee may be represented by a private person, a trust company, a car manufacturer, an association, or all these acting together. The point is, the certificate is the right to participate in certain property held under trust, which includes: (1) the equipment, (2) the legal instrument or lease under which the owners or trustees look forward to the final sale to the railroad. This legal instrument or lease may be supplemented by an elaborate "agreement" between the trustee and the railroad. An equipment mortgage bond, on the other hand, is merely the promise of the road to pay the bearer or registered owner a certain sum, a promise resting on the pledge of equipment with a trustee. An "equipment bond" is not issued under the Philadelphia plan, except by the use of a misnomer. There have been and are today many

Security Pledged.—The physical equipment itself that is covered by the lien is usually diversified. Of some 320 separate issues of equipment securities outstanding in 1915 approximately a quarter were secured by one class of equipment alone and three quarters by collections of mixed equipment. In 1925 hardly one fifth of the issues covered single classes of equipment. When one class alone is used it is some standardized type used in large quantities by many roads—like steel gondola cars, oil tanks or refrigerator cars.[r]

---

attempts to combine the two ideas, but, on analysis, it will appear that the final distinction lies in the question of the possession of the title to the equipment. The term "equipment note" is sometimes used, and may refer either to the Philadelphia plan certificates or to the bond. Also various roads have tried to combine the two forms by acquiring the equipment, deeding it to a trustee, and then leasing it. This is an unfortunate subterfuge. Some roads, too, have issued an out and out equipment bond, but have sought to give it the appearance of a Philadelphia plan certificate by bringing in the lease idea.

[r] The following are typical illustrative examples of equipment issues covering quite typical collections of cars and locomotives.

An earlier mixed equipment trust is that represented by the following:

Chicago, Rock Island and Pacific Railway
Equipment Gold 4½s Series "G"

Dated July 1, 1912
Maturing semi-annually, $170,000, January 1 and July 1 to July 1, 1927, inclusive
Interest January and July 1 at New York
Bankers' Trust Company, New York, Trustee
Secured on
50 locomotives
6 steel dining cars
4 steel horse cars
3,000 box cars
30 steel baggage, mail and passenger cars
10 steel baggage cars
2 gasoline motor cars
900 ballast and coal cars

Original Cost	$5,557,788
Cash Paid by Company	457,788
Certificates Originally Issued	5,100,000
Matured and Paid	3,910,000
Outstanding	$1,190,000

A later equipment issue of the same general character is the following:

Great Northern Railway
Equipment Gold 5s, Series "B"

Dated September 1, 1925
Maturing annually, $575,000, September 1, 1924 to 1938, inclusive
Interest March and September 1 at New York
The First National Bank, New York, Trustee
Issued under Philadelphia Plan
Secured on
30 Santa Fé type locomotives
28 Mountain type locomotives
1,500 steel ore cars
500 steel underframe automobile cars
125 steel tank cars
1,000 box cars

At the time of the original issue equipment obligations rarely cover more than 90 per cent of the original cost of the equipment, although the Pennsylvania Railroad follows the practice of issuing its car trust certificates for the entire original cost of the equipment and the various issues arising from the purchase of equipment from the Government in 1920 covered the entire cost. In very rare cases an equipment trust has been formed to cover rolling stock already used, so as to give the road money to make repairs. One of the unusual cases of this character was the Detroit, Toledo and Ironton Railroad Equipment Notes of 1914. The issue is explained, of course, by the low credit of the road. This trust was created when $2,000,000 was borrowed to repair 1,763 coal cars. It was unusual in maturing in three years. The borrowing was excessive as new cars could have been bought at the time for only a little more money. This railroad and its predecessor have afforded the case *célèbre* of equipment issues.[31]

It is quite common for the railroad using the equipment

Original Cost	$11,527,457
Cash Paid by Company	2,902,457
Certificates Originally Issued	8,625,000
Outstanding	$ 8,625,000

Public offering October, 1923, at 5:20–5:50 basis

An issue created to take over equipment from the Government in 1920 is represented by the following:

Illinois Central Railroad Company
Equipment Gold 6s of 1920 (No. 33)

Dated January 15, 1920
Maturing annually, $607,800, January 15, 1921 to 1925, inclusive
Interest January 15 and July 15 at New York
Guaranty Trust Company, New York, Trustee
Redeemable as a whole at 103 and interest on any interest date on 60 days' notice
Secured on
  2,650 50-ton composite gondola cars
  150 55-ton steel hopper cars
  850 50-ton steel hopper cars

Original Cost (approx.)	$9,117,000
Certificates Originally Issued	9,117,000
Matured and Paid	2,431,200
Outstanding	$6,685,800

Issued to the United States Government at par under Equipment Trust Agreement of January 15, 1920, between Director-General of Railroads, the company and the Trustee.

[31] See note (gg) below.

to guarantee the car trust certificates covering the equipment it leases, although it is questionable whether or not this adds to their fundamental security.[s] When the issue is irregular in some conspicuous respect it is almost always guaranteed by the operating road. Likewise when an equipment trust is created for one or more small subsidiaries it is usually guaranteed by the parent or allied road. Thus the four great issues of the New York Central lines are guaranteeed jointly and severally by the chief operating roads of the New York Central group. In a few cases the equipment obligations are guaranteed by the manufacturer from whom the equipment was purchased. Thus the 1910 issue of the Denver Northwestern and Pacific Railroad was guaranteed by the American Locomotive Company. The American Car and Foundry Company guaranteed the certificates of the St. Louis and San Francisco Railroad (Series L, 1907) and those of the American Refrigerator Transit Company (Series C, 1913). Rarely is the issue additionally secured by the deposit of collateral securities—the Reading issue of 1901, with $833,000 Philadelphia and Reading General 4s pledged in addition to the equipment is such a case. The issues before 1915 seldom provided for the payment of the entire issue at the option of the railroad, but this provision has been inserted more frequently since then.

Obligations to Refund War Equipment.—Perhaps the most notable issues of equipment obligations that have occurred within the last few years are those in which the United States Government was concerned. This ostensible co-operation between the Government and the railroads represented one of the many post-war adjustments by which it was sought, either

---

[s] Out of 111 separate equipment trusts, quoted on the markets in November, 1925—representing the most important and largest issues—22 were guaranteed by the railroad.[32]

---

[32] Volkeming, R., Guaranteed Bonds, Harvard Graduate School of Business Administration (1926).

by ordinary or artificial means, to re-establish the customary processes of the industrial and financial life of the nation.

While the railroads were operated by the Government during a part of the American participation in the Great War the whole purpose was to concentrate the energies and the economic resources of the country on winning the war. Consequently comparatively little capital was invested by the Government in new railway equipment during the entire period of its administration of the roads; and consequently when the time came for the return of the railroads to their private owners the equipment then existing was insufficient to the requirements of the traffic. Much of it, too, was dilapidated or worn out. Recognizing this situation Congress enacted legislation to enable the individual railroads to acquire something over $350,000,000, cost value, of equipment either from the Government which had purchased it from manufacturers or from the manufacturers themselves, who had contracted with the Government for the building of the equipment.

As the railroads alleged that their credit was too poor and interest rates too high to enable them to pay for the equipment immediately, a plan was devised to use equipment obligations. In detail the plan provided for the conveyance of the entire rolling stock, already bought and paid for by the Government and that contracted for by the Government to the Guaranty Trust Company of New York, in trust, in return for equipment obligations of a par value approximately equal to the cost of the equipment. The Guaranty Trust Company, as trustees, then sold the equipment to some 75 railroads, large and small, and in varying amounts (from $54,000,000 to the Pennsylvania Railroad down to $130,000 to the Norfolk and Western Railway) in return for numerous series of equipment obligations all dated January 15, 1920, maturing in equal annual instalments during a period of fifteen years, and bearing 6 per cent interest. Practically all of these issues were based on conditional sale agreements, although that of the Pennsylvania was issued under the old Philadelphia plan of a lease. Simultaneously these issues were delivered to the Government in liquidation of the amount paid or to be paid for the equipment. This plan gave the Government a free hand to sell the equipment notes on the open market and reimburse itself for the original expenditures.

Later, in order to facilitate the sale of at least some of the notes, the Government stamped approximately a third of certain issues—in most cases those maturing after 1930—as subordinate to the unstamped notes of the same issue. By this means two-thirds of the maturities in any one issue were made a prior lien to the equipment covered over and above the stamped notes. This was a device to give the unstamped notes an advantage, in the minds of the ultimate investor, to compensate for the fact that the notes were issued for the full cost value of the equipment, and a cost undoubtedly inflated by the immediate post-war boom of prices. Unquestionably the device did give the unstamped notes an ostensible security which the conditions of issue did not warrant. But it left the stamped notes secured only by an equity in cars and locomotives bought at inflated prices, without any original investment on the part of the railroad and running over a period of years not much, if any, greater than the life of the equipment itself. Obviously these notes were left in an anomalous position, from the point of view of sound investment. And yet the Government has sold these subordinated notes so that the entire venture has yielded a profit.

At the time of issue some Government officials and certain western Congressmen pretended that this whole piece of legislation was an insidious and perhaps unwarranted Government subsidy to help the railroads. Possibly this was so, but the plight which railroads found themselves in both with regard to equipment and credit was very largely due to the general inefficiency of a federal bureaucratic administration of the carriers, and the Government itself was borrowing money at the time for less than 5 per cent while it was charging the railroads 6 per cent. The Government settled with England

and Italy at a net return to the American taxpayer of less than 3 per cent in one case and less than 2 per cent in the other on its international advances.[t]

Along the line of Government assistance in financing the purchase of railway equipment is the formation of the National Railway Service Corporation in 1920. This was organized as an initial step toward the ownership and control of railway equipment by a single corporation, operated in the interest of the railroads primarily, rather than for profit. An organization of this character can be of very great assistance to the carriers and also of service to the investors to whom equipment obligations can be made even more attractive.

Value as Investment—Fundamental Security.—The ability of the railroads to make use of equipment obligations rests upon their value as investment securities. Any attempt to pass judgment upon this phase of the subject must concern itself with at least three questions—the value of the fundamental security at all times behind the equipment obligations, the relative values of the different legal types of issue, and finally the experience of investors, over a period of upward of fifty years, with the treatment of equipment obligations in railroad failures and reorganizations. In order to simplify the subject each of these phases of the subject will be discussed separately.

The first consideration, from the point of the investor, of the security behind his equipment obligation is the proportionate share of the total realizable, selling value of the locomotives and cars covered by the lien of his security. In this respect the basis of his judgment of security is no different from that of the holder of a mortgage on a farm or an automobile. And in order to determine the net selling price value of cars and locomotives the investor ought to be able to estimate their probable cost when they were first acquired—whether purchased at times of general high prices or low prices—and the present and probable future cost of the same equipment. Further than this he should be able to estimate the relative deterioration in value of equipment through use, depreciation and obsolescence. Unfortunately the average investor cannot acquire accurate knowledge on these matters. He must be content to rely on certain general assumptions of cost, depreciation, and salvage value. Consequently, in order that equipment obligations shall maintain, as a class, a high standing among investment securities, railroads should exercise every care that each issue shall come well within any reasonable presumption in regard to probable cost, and that the certificates shall be paid off more rapidly than the equipment declines in selling value according to any recognized standard. Only by scrupulously observing these conditions can the railroads continuously maintain the high investment standing of their equipment obligations.

---

[t] Further information concerning this whole episode in railroad finance may be found in Duncan, Equipment Obligations, Chap. IV (1924); 110 Chron. 922, 111 Chron. 751, 1587 (1920); also a booklet issued by Freeman and Company, Information Regarding Equipment Trust Agreements executed by Railroads and Director-General of Railroads (1921).

Cost and Depreciation of Equipment.—It is extremely difficult to form an accurate idea from the outside of the real cost and value of the equipment covered by any issue, unless it is of one standardized pattern. Undoubtedly the average prices of equipment have increased during the last fifteen or twenty years, quite in harmony with the general rise in prices. It is, however, somewhat difficult to compare equipment price levels at different times, especially as the quality of cars and locomotives improved very much from 1905 to 1916. A writer estimated the average net cost of a standard 40-ton steel underframe box car for the eight years from 1908 to 1916 to be $947, with extremes from $844 to $1,200.[33] A computation was made in 1918 of the cost of special equipment securing different equipment issues covering a single class of rolling stock; they include practically all of each type outstanding between November 1, 1914, and February 1, 1917.

---

[33] For discussion see 7 N. Y. Times Annalist 116 (1916).

Kind of Equipment	Number of Series	Total Number of Pieces	Total Cost	Cost per Unit
Locomotives (not special type)	17	473	$8,212,443	$17,362
Steel Underframe Box Cars	13	30,636	35,067,383	1,112
Steel Underframe Refrigerator Cars	6	3,525	6,285,055	1,782
Steel Gondola Cars	8	10,500	12,491,946	1,182

The costs of equipment rose very rapidly during the Great War so that the prices mentioned above are not indicative of a permanent level of price. It is extremely difficult, however, to determine definite prices, owing to the growing custom of employing mixed equipment. The Illinois Central Railroad purchased 2,350 freight cars in 1922, mostly of the gondola type, at a cost of $4,071,500, or at the rate of $1,732.55 apiece.

A group of coal companies purchased in 1923, 500 copper cars at a cost of $1,350,000 (Emmons Equipment 6s), or $2,600 each. The Cincinnati, Indianapolis and Western Railroad (Equipment 5½s, Series C) purchased in 1922, 207 standard steel underframe gondola cars for $375,653, or $1,814.75 per car. The Indiana Harbor Belt Railroad (Equipment Trust 6s) were secured by 20 heavy switching locomotives purchased by the Government about 1919 at a cost of $788,293, or $39,414.65 apiece, whereas in 1923 the Indiana Harbor Belt Railroad (Equipment Gold 5s) purchased 25 Mikado type locomotives for $1,233,000, or $49,320 per locomotive. The Cincinnati, New Orleans and Texas Pacific Railway purchased in 1918, 25 heavy freight locomotives for $1,868,250, or $74,730 per locomotive. These random selection quotations show the extreme difficulty of working out a basis of cost.

These variations in cost also indicate the uncertainties of trying to form a standard unit of value. Yet the investor in equipment obligations should bear in mind that railroads are prone to buy their equipment during "boom" stages of the industrial cycle—because at such times their existing facilities are stretched to the utmost—and at such times equipment prices are apt to be at their peak.

Depreciation and Repayment.—Granting, however, that a certain railroad was shrewd in its purchase of equipment, at the time its equipment trust was created, and that it paid at least a tenth of the cost at the beginning, the provision of the lease contract of most importance to the investor is that dealing with the rate at which the loan shall be paid. Under all circumstances railroad equipment wears out rapidly and much of it quickly becomes obsolete.[u] Were there no means of fully maintaining the equity behind an equipment lien, therefore, it would be the weakest kind of corporate security. Yet by making it mandatory on the part of the road to pay off the obligations faster than the equipment wears out, the equity to the noteholders is not only maintained but increased. To achieve this result, certain definite presumptions must be made, the most important of which is the true rate of depreciation.

The investigations of the Master Car Builders Associations and the various studies that have appeared from time to

---

[u] It is often contended by railroad engineers that obsolescence is greater with locomotives than with any other form of equipment. While this may be true, it should be remembered that an obsolete locomotive can be used on branch lines and for company work, whereas obsolete freight cars are uneconomical however employed. Obsolete passenger cars are even worse because besides being inefficient, they usually tend to create ill feeling in the minds of the patrons of the road.

Duncan[34] appears to be of the belief that obsolescence is not a factor affecting future values. Of that the future only can tell, and it is the future which especially concerns the investor. While the argument might hold for steel underframe cars of standard construction, it certainly would be preposterous to hold, in the light of past experience, that locomotives are not subject to obsolescence.

In the opinion of the writer that class which suffers least in value through use—both physical depreciation and obsolescence—is the steel underframe tank car for the transportation of petroleum products. Yet it is interesting to note that of all series of equipment obligations issued since 1920 those secured by petroleum tank cars matured most rapidly—many of the issues in less than five years. Many of these issues were brought out by oil companies; and investors were presumed to be suspicious of any kind of bond of a petroleum company unless the strength of security was unusual.

---

[34] Equipment Obligations, 265 (1924).

from ready sale

time in the railroad periodicals have assumed the existence of, and have sought to determine a theoretical period of usable life for railroad rolling stock. Such a computation is not sufficient for the holder of equipment obligations, because, from his point of view, the value of rolling stock is not its theoretical usable value, but its exchange or ready sale value.[v] For, while it is perfectly true that the development of steel construction, particularly the steel underframe, has very much increased the serviceability of the car it is not clear from records that the salable life of the car is any longer. The two criteria are essentially different. A car may have a theoretical life, based on an abitrary depreciation constant, long after it ceases to have a second-hand sale value. It may be held in reserve for freight congestions when it cannot be sold—except at the very time of the freight congestion. Moreover, the constants worked out by the manufacturers are based on mere decline in physical value through use, and presume only an arbitrary and slight, if any, constant of obsolescence. Furthermore, the annual cost of repairs increases as the car ages, so that there comes a time when it is cheaper for a road with credit to "scrap" the cars than to meet the constantly increasing cost of repairs. In fact, after a time the value of the car becomes a kind of constant scrap value, the use and sale value being functions of the repair charges. From these theoretical considerations and such figures as the writer is able to gather from practical railroad men, he is of the opinion that collections of mixed equipment, consisting of ordinary locomotives to about a third of the total amount and the other two-thirds standard cars readily usable by other roads, have a salable life of about 13½ years. At the end of this time it has a scrap value of about 15 per cent of its original cost. This scrap value suffers only slight diminution during the next five to ten years, provided sufficient sums are annually spent in repairs to take care of the obvious decays and breakages. For purposes of computation we may assume, therefore, that the equipment declines 85 per cent in value during the first 13½ years of its life. The decline in salable value appears to be more rapid during the first three years of the equipment's use and less rapid during the last four or five years, than an arithmetically regular decline would imply. The first year, this decline is fully a half more than what the average of the period would be, whereas the decline during the last year is only about a half that of the average. From the fourth to the eighth year, the decline is the average.

---

[v] Duncan suggests (page 266, note 43) that the consideration of second-hand sale value of equipment is not significant, owing to the uncertainties attendant upon the sale of any particular lot of rolling stock. Unquestionably the results of the sale of any particular lot of equipment at some future time is problematical. So is the future sale price of mortgaged farm land or urban buildings; so is the result of the sale of any property pledged as security for a loan. If a certain and accurate knowledge of the future sale value of pledged or mortgaged property were necessary to enable banker, bank-examiner, or investor to estimate the value of loans on these other forms of property, things would be somewhat different from what they are now. Duncan admits in another part of his book (pages 181 to 185) that the investor holding equipment obligations is more interested in "what the specific property will bring at a sacrifice sale as second-hand equipment" (page 181) than in any arbitrary value based on theoretical depreciation.

It should be remembered that any such computation is inexact and at best a mere guess. It is, however, much more accurate for the purposes of judging the second-hand sale value of equipment, than that of the Master Car Builders Association, which concerns itself merely with usable value based on material depreciation. On the other hand, general economic conditions may entirely upset these estimates. If the equipment is bought just before a general business "boom," it is entirely possible that the subsequent rise in the initial cost prices of equipment and the necessities of the other roads might create a situation such that year-old cars could be sold for more than they cost. It is quite true that a standard steel underframe box car, bought in January, 1915, could be sold in January, 1916, after a year of reasonable use, for more than it had cost; it is even probable that this same car could be sold January, 1917, after two years of use, for what it had cost. Of course just the reverse is true if the equipment is bought at the height of a boom period.[w]

---

[w] Owing to the importance of the subject much has been written concerning the depreciation and obsolescence of railway rolling stock. Unfor-

With these assumptions in regard to depreciation and obsolescence one may construct a table indicating the probable equity behind the various maturities of a single issue of equipment obligations. For the purposes of illustration we will assume that a lot of mixed equipment cost $1,000,000, that the railroad made an initial payment of $100,000, and created an issue of $900,000 equipment obligations due in ten equal annual instalments of $90,000. Based on these assumptions the equity behind each maturity of certificates increases directly after the payment of the preceding instalment.[x] This can be seen at a glance from the following table.

Beginning of Year Immediately after Instalment Paid	Volume of Certificates Outstanding	Percentage of Depreciation of Original Cost during Preceding Year	Money Value of Depreciation during Preceding Year	Value of Equipment	Equity behind Outstanding Certificates	Percentage of Value of Equipment Represented by Outstanding Certificates
1	$900,000	...	......	$1,000,000	$100,000	90%
2	810,000	9.5	$95,000	905,000	95,000	89%
3	720,000	8.4	84,000	821,000	101,000	87%
4	630,000	7.4	74,000	747,000	117,000	84%
5	540,000	6.3	63,000	684,000	144,000	79%
6	450,000	6.3	63,000	621,000	171,000	72%
7	360,000	6.3	63,000	558,000	198,000	64%
8	270,000	6.3	63,000	495,000	225,000	54%
9	180,000	6.3	63,000	432,000	252,000	42%
10	90,000	6.3	63,000	369,000	279,000	24%
11	....	...	......	....	....	....

---

tunately there is no unanimity of opinion, even among practical railroad operators. The Master Car Builders Association estimates for cars as follows: wooden bodies and wooden underframes 6 per cent annually; wooden bodies and steel underframes 5½ per cent; metal bodies, steel underframes and trucks 5 per cent. This basis was taken by the statistician of the Guaranty Trust Company in figuring margin of safety for equipment obligations.[35] Chamberlain uses a rough estimate of 15 to 20 years as the life of equipment: Chamberlain, L., Principles of Bond Investment, 309 (1911). The Pennsylvania road has used 3 per cent for freight cars and 4 per cent for locomotives. Rates have varied.[36] There were three brief essays by the distinguished accountant of the Union Pacific lines: Mahl, W., 43 Ry. Age Gaz. 418 (1907), 48 *Ibid.* 400 (1910), 48 *Ibid.* 1249 (1910). Also from the point of view of accountants Stockwell, H. G., "Depreciation, Renewal and Replacements," Accountants' Year Book, Am. Assn. Pub. Accountant for 1909, 192; also Saliers, Depreciation, Principles and Application (1922).

[x] Similar calculations of the equity behind equipment obligations at varying periods of their life have been made by other writers using slightly different assumptions for the rates of depreciation. Three such calculations have received publicity, in no one of which do the *general* results differ from the computation here given. The Guaranty Trust Company's calculation is based on the Master Car Builders Association's figures for depreciation cited in a previous note. It shows a larger proportionate equity during

---

[35] See Railway Equipment Obligations (3rd Ed.), 9.

[36] See Lill, T. R., Jour. Account., (Jan., 1917) giving statistics.

The most exhaustive study of the kind is that of Duncan. He has made assumptions not essentially different from those employed in this analysis and has worked out the results with much greater elaboration. He has constructed a diagram which illustrates at a glance the effect of the operation of both serial maturities and depreciation (both straight line depreciation and liquidation value) on the equity of succeeding maturities of the same issue.[38]

Increase in Strength as Instalments Are Paid.—Certain inferences may be made from a study of these figures. The most obvious is that the equity behind the outstanding certificates increases as each instalment is paid in spite of the depreciation of the equipment. In other words, the railroad obligates itself to pay off its certificates more rapidly than the security behind them declines in value. In this simple fact, more perhaps than in any other one thing, lies the strength of equipment issues. The second inference is that the obligations have least strength, from the point of view of equity, immediately after their issue; and those that mature late have a constantly increasing strength the longer they are outstanding. The strongest equipment obligations obtainable, from the investment point of view, are those of the last instalments of some old series purchased a year or so before their maturity. The figures given in the preceding table show, too, that an issue of equipment obligations having more than ten years to run, or one that is paid off in more than ten annual instalments, or is issued for the full value of the equipment does not in itself afford substantial security. It is true that some of the roads with very strong credit, like the Pennsylvania Railroad, issue

---

the first few years of the equipment trust. Chamberlain explains the same principle by means of a diagram but is somewhat vague and unscientific in the use of his depreciation constants, though more exact than the computation here given in the use of semiannual rather than annual instalment payments. His diagram shows at a glance, much better than figures, the principle of increasing equity behind the equipment obligations.[37] The third calculation is that of Duncan described in the succeeding paragraph.

---

[37] Chamberlain, L., Principles of Bond Investment, 309 (1911).
[38] Duncan, K., Equipment Obligations, 180-191 (1924).

securities of this sort that are called equipment obligations, but these in reality rest much more on the credit of the road than on the equity behind the equipment.[y]

Perhaps the most conspicuous and unfortunate anomaly of recent years was the numerous issues of January, 1920, representing the repayment to the Federal Government of advances made to the roads at the time of the return of the carriers to their private owners.[39] These notes were secured by equipment purchased at abnormal, war-inflated prices, much of it already in service. Nevertheless, the issues covered the full cost of the equipment and were to run for fifteen rather than ten years. Several years previously a committee of the Investment Bankers Association of America had been appointed to make a careful study of the whole subject of equipment obligations. It had reported, as early as 1913, recommending that precautions be taken in order to maintain the investment strength of equipment obligations. The report suggested the use of "only the old-time ten-year serial form with a minimum of 10 per cent of the cost paid down in cash when the bonds are issued; but in view of the great initial depreciation, 15 per cent is much more to be desired."[40] Nevertheless, the tendency has been to depart, more and more, from these strict conditions.[z]

---

[y] All the equipment obligations of the Pennsylvania Railroad are of this class, because issued for an amount equal to the total cost of the equipment. So also were the series A, B, and C of Chicago and Northwestern Railway. The four great equipment trusts of the New York Central lines are of this class, because they mature in fifteen rather than ten years. That of 1913 is a conspicuous variation from type in that it is an open end mortgage. The single issue of Delaware and Hudson equipment bonds varied from the normal in that it was protected by a sinking fund rather than instalment payments.

The Buffalo, Rochester and Pittsburgh Equipment Trusts (Series A, B, C) broke most of the canons in that they were issued for the actual value of the equipment purchased, ran for 20 years, and carried a sinking fund of 5 to 6 per cent.

[z] A practical illustration of the necessity of insisting that the equipment obligations shall be issued in strict conformity to established practice is that of the Wheeling and Lake Erie Railroad 5 per cent Equipment Bonds, issued in 1902. They were payable in instalments of different amounts

---

[39] See page 198.

[40] Proc. I. B. A. A. 108 (1913).

Relative Investment Value of Three Forms.—The second phase of the investment value of equipment obligations, which we propose to discuss, is the relative legal and equitable strength of issues created under lease, conditional sale and mortgage. There is no question in the mind of any student of the subject that the mortgage is the weakest of the three.[41] The railroad, in this case, has title to the equipment. And although the equipment mortgage bondholder has a lien on the specific lot of equipment he runs the gauntlet of having this lien destroyed by interpolation, ahead of it, of receivers' certificates, previously existing blanket mortgages and the claims of judgment creditors. It was to avoid just such dangers that the first lease-hold obligations were originally created. As nothing has occurred in the last fifty years to strengthen the position of the holder of a mortgage on equipment over that of the owner, under a lease or conditional sale agreement, one

---

until 1922, and therefore irregular in having double the life established by conservative practice. A receiver for the road was appointed in 1908. He continued to meet the sinking fund instalments until January 1, 1915, when he defaulted, and on July 1, 1915, defaulted on the interest. In the spring of 1916, the time at which the previous comparisons were made, the road's underlying first mortgage bonds commanded a 4.92 per cent credit, notwithstanding the receivership. In a previous note it was pointed out that ordinarily the value of equipment obligations is affected but little by receivership. Yet in this case, the certificates yet unpaid declined to only 60 per cent of par, at which price they were selling on a 15 per cent basis—provided one assumed their payment at maturity. Owing to the long period during which the road had been paying for the equipment, the value of the rolling stock had declined to less than the face value of the outstanding certificates; hence the receivers had every reason to regard the payment of the certificates as of doubtful expediency.

The treatment of these certificates in the final reorganization is interesting and suggestive of the fundamental investment strength of all types of equipment obligations—even those issued under irregular and weak conditions. After the certificates had been in default for over a year, the reorganization managers, in contemplation of the forthcoming reorganization, agreed to pay the back interest and to pay 35 per cent of the face of the outstanding certificates in cash and to give new 4 per cent Secured Sinking Fund Equipment Notes for the remaining 65 per cent. These new notes were secured by the old unmatured equipment bonds, which in their turn were secured by the equity in the equipment. The reorganized company agreed to buy and cancel one-sixth of the new notes each year until the entire issue was redeemed. Considering the weakness of the conditions under which the original bonds were issued, the reorganization managers were exceedingly liberal to the holders of the outstanding obligations.

---

[41] See the extended account in Duncan, "Equipment Obligations," Chap. V (1924), dealing with Equipment Obligations at common law for references and citations.

can pass over this phase of the subject without further comment.[aa]

Lease vs. Conditional Sale.—A question of much greater subtlety and of greater practical significance is the relative investment strength of the Philadelphia plan certificates, as compared with those issued under a conditional sale agreement. Most writers have presumed a superiority of strength in the lease certificates.[42] This presumption has recently been denied on the ground that all the legal citations which enable a lessor to withhold the equipment from the creditors of a railroad would apply equally well to a seller under a conditional sale agreement.[43] Unfortunately, this specific question has never been decisively adjudicated in any actual legal case. We are thrown back, therefore, upon certain inferences, some of which are significant.

There are three lines of reasoning which tend, in the writer's opinion, to support the view that certificates issued under the lease, or Philadelphia plan, are to be preferred over those issued under a conditional sale agreement. The importance of the subject warrants a consideration of each of these.

LEGISLATIVE STATUS.—The first is suggested by the conditions surrounding the origin of the Philadelphia lease plan. The courts of Pennsylvania and certain other states[44] have

---

[aa] An excellent illustration of the difference of strength between mortgage equipment bonds and those issued under a lease or a conditional sale agreement is afforded by the reorganization of the Norfolk and Western Railroad. There were at the time of the failure two groups of equipment obligations: (1) Equipment Mortgage 5 per cent Bonds of 1888, $4,114,000 outstanding. These were not issued under the regular Philadelphia plan. (2) Car trust obligations, various issues and maturities, $3,125,000 outstanding. These were issued under the Philadelphia plan in its simple form or with certain unimportant modifications. In the reorganization, the equipment bonds were refunded or disturbed—as it is called in reorganization parlance—the holders receiving new bonds and stock, whereas the car trust obligations were paid in cash, although it required over half the $5,555,000 of money raised for immediate needs. For plan see 62 Chron. 641 (1896).

---

[42] See Chamberlain, L., Nature of Equipment Trusts, 17 Moody 585 (1914); "Equipment Trusts," 127 Outlook 608; Beach, S. H., Railroad Equipment Obligations (1920); Cassett & Company, Philadelphia, Equipment Trust Securities (1921); Dewing, A. S., Railroad Equipment Obligations, 3 Am. Ec. Rev. 353 (1917).

[43] Duncan, Equipment Obligations, 123 (1924).

[44] See note (e)

failed to recognize, in their common law decisions, the conditional sale of movable personal property as a valid means for holding property against the creditors of the purchaser. Now it is undoubtedly true that the legislation of most, if not all, the states of the Union—including Pennsylvania and the other states where the conditional sale is not recognized at common law—have enacted statutory legislation specifically acknowledging the legality of the conditional sale of railway equipment as a means for segregating this particular type of obligation from the other credit obligations of a railroad. Many of these statutes describe, in detail, certain conditions, which, if complied with by all the parties concerned, ostensibly render equipment obligations issued under a conditional sale agreement immune from attack by all other creditors of the railroad. So far as these statutes can go, they have undoubtedly gone in putting conditional sale agreements on the same footing as equipment leases. But statutory enactment is not law. Until the complete validity of these statutes has been tested, by numerous and final court decisions, they remain merely the "dicta" of more or less intelligent legislators. Furthermore there have been practically no court decisions on this very point, nor on the constitutionality of the statutes themselves. But even if there had been decisions in certain states construing the conditional sale to be equivalent in security to lease, there would remain other jurisdictions, to which these decisions might not apply, and into which portions of the equipment might wander. The equipment might, conceivably, be held by a creditor. Consequently, the lease form, which is not susceptible to the uncertainties of court-made law, on this particular point, must remain in the stronger position.

General Repute.—The second point in favor of the lease, rather than the conditional sale, is the general acknowledgment of its superior strength. Besides the admissions of various writers on the subject[45] one of the strongest explicit acknowledgments of the superior strength of the Philadelphia lease plan is the discriminating attitude observed by the directors of the National Railway Service Corporation. This was organized largely through the efforts of National Association of Owners of Railway Securities in order to secure, through Government aid and co-operation among the railroads, a permanent vehicle for financing railway equipment. So far only a few equipment contracts have been executed. In those cases, however, the corporation has followed the practice of insisting on the Philadelphia "lease" plan when the credit of the railroad was weak, but of allowing the conditional sale contract with roads of strong individual credit. This view is followed by practical bankers. Provided the obligation is issued under the Philadelphia plan there is a growing inclination to take the equipment obligations of roads with poor credit.[bb]

---

[45] For example, in the *Outlook* article (April 13, 1921) the writer explained the Philadelphia plan in a superficial manner, and employed its *modum operandi* to indi-

Status Under Receivership.—Finally, and this is, in the writer's opinion, the strongest point in favor of the Philadelphia plan, the lease certificates occupy a clearer position at and during the receivership of a railway. Unfortunately there are no legal decisions to substantiate this; but it is suggested by a little reflection upon the extraordinary powers assumed by an equity receiver, supported in all important matters by a Judge who takes a liberal view of his powers in equity. The ultimate test of the investment value of a corporate security is its status after the failure of a corporation. As the evidence presently to be discussed will show, all equipment obligations have a remarkable history from the point of view of treatment during receiverships of failed railroads. In one case equipment obligations were paid whereas receivers' certificates were not. Cars

---

[bb] This point has been discussed with a large number of bank and insurance officials who are responsible for the institutional purchase of securities. In cases when the official understands the distinction between the lease and the conditional sale plan—which seems not always to be true—fully three-fourths alleged their preference for the lease form, and emphasized its especial importance for equipment obligations of roads with weak credit.

---

cate the basis of the investment strength of equipment obligations. No mention whatever was made of the conditional sale plan.

and locomotives are necessary to the operation of the road even during the receivership; and ordinarily the unpaid equipment notes, in any car trust, are less than the cost of replacing the equipment. Further, the Court appointing the equity receiver of a financially embarrassed railroad secures jurisdiction only over the *res* of the railroad corporation, that is the property to which the railroad had an equitable or legal title. Now if the equipment obligations are issued under the Philadelphia lease plan the railroad has not even a shadow of a title to the underlying rolling stock, and hence this rolling stock does not come under the jurisdiction of the court. If the equipment notes are issued under a conditional sale, the railroad does acquire at least a shadow of an equitable title to the equipment [cc] and over this shadow the Court, in its equitable powers, takes jurisdiction.

If the Court has jurisdiction over even this shadow of an equitable title then the trustees or vendors must obtain the consent of the Court to segregate and remove the equipment. And, finally, if the Court takes a very liberal or "public policy" attitude toward the property in its hands, as several judges have done in the past, this consent may be refused on the grounds of the controlling public interest. From this refusal the vendor, under the conditional sale, could appeal, but time would be consumed during which the receiver would have absolute control over the equipment. Moreover, the final adjudication of subtile points covering the equitable powers of a court in protecting the public interests is always problematical, whatever the apparent trend of the substantive law. At all events, temporarily at least the specific purpose of the conditional sale in withholding control of the equipment from the railroad during default of the instalment payments would be defeated. This reasoning does not apply to equipment obligations issued under the Philadelphia lease, because not even the shadow of an equitable or legal title passes to the railroad.

[cc] Metropolitan Trust Company v. Railroad Equipment Co., 108 Fed. 918 (1901) is usually cited as one of the Federal Court decisions which gives strength to equipment obligations, yet in it are the significant words

Equipment Obligations in Reorganization.—It would be a serious omission, if, in discussing the investment value of equipment obligations, we were to omit at least a brief reference to their treatment in past railroad reorganizations. Judged by this test, equipment obligations are among the strongest, if not the strongest form of corporate security. Knowing that the railroad cannot be operated without cars and locomotives and that it would be wasteful and inexpedient to sacrifice the equity remaining to the road, receivers have almost invariably continued the payments on the equipment trust interest and instalments. If necessary, receivers' certificates, taking priority over mortgage liens, have been authorized to meet these payments. Furthermore, at the time of reorganization the holders of outstanding equipment obligations have, in a few rare cases, been asked to refund their securities on an advantageous basis; in still rarer cases they have been asked to undergo what would seem like permanent sacrifices.[dd] In contrast,

---

"The interest of the railroad companies and their mortgages was but an equitable interest, and subject to the terms of the conditional sale."

[dd] The two cases of the refunding of equipment obligations are the Denver and Rio Grande reorganization of 1886 and the Norfolk and Western reorganization of 1896. The former involved an actual temporary, sacrifice, and will be discussed at length in the succeeding note.

The Norfolk and Western Railroad reorganization of 1896, although involving the refunding of certain equipment obligations did not imply even a temporary sacrifice. There were two classes of equipment obligations outstanding; those issued under the Philadelphia plan were paid in money, whereas the equipment mortgage bonds were refunded. For each $1,000 in equipment mortgage 5 per cent bonds, the bondholder received $1,000 in new consolidated mortgage 4 per cent bonds and $480 in new preferred stock. He was compelled to undergo a sacrifice of 1 per cent in yearly income, but this was fully compensated for by the preferred stock bonus. Subsequently, with the success of the rejuvenated Norfolk and Western road, he had an increase in both income and principal. The most notable case, however, in which the holders of Philadelphia plan certificates were forced to undergo even a temporary sacrifice, is that of the Denver and Rio Grande reorganization of 1886. As this is the only instance in the history of American railway finance where the holders of equipment obligations issued under the Philadelphia plan were forced to suffer for a considerable period, the details are significant. The old Denver and Rio Grande had been built in the seventies, one of the numerous far-western lines built long before its construction could be said to have been an economic necessity. It was built, in fact, first to gratify the civic pride of Denver (not touched by the Union and Central Pacific lines) and latterly to open up barren territory in competition with the Atchison. It was narrow guage, and refused to change to standard as soon as its eastern connections or western competitors. In the depression of 1883 and 1884 it failed. Disaster also overtook its western however, to these rare exceptions, it may be said that in practically all of the reorganizations of American railroads, the

---

extension, the Denver and Rio Grande Western. At the time of the failure there existed a comparatively small issue of first mortgage bonds, the interest on which had been earned unquestionably. There were also approximately $3,500,000 6 per cent and 7 per cent equipment certificates on which the interest had not been fully earned. The rolling stock securing them, besides being narrow guage and therefore unsalable at a time when roads all over the country were changing to standard guage, was worn, dilapidated, and out of repair.

Besides this, there were two large issues of junior bonds and much worthless stock practically all owned in England and Holland. Some of the equipment had been used by the Denver and Rio Grande Western in a manner contrary to the spirit of the equipment trust. In the report of Pothonier and Parrish—an interesting example of a foreign report on one of our early, needless roads, built largely with foreign capital—it was stated: "It will be absolutely necessary to capitalize the rolling stock trusts on fair and equitable terms, or, failing this (the contracts being extinguished by foreclosure), to provide the necessary equipment on the basis of present low prices."[46] The bonds of all issues, together with the stock, were largely held in England and Holland, but the equipment obligations were held mostly in Pennsylvania. Judge Hallett had ordered the payments of the principal of some of the equipment certificates postponed, and the holders had done little to object. Some of the bondholders at the time contended that the reorganization committee could then, in the depression of 1885 and 1886, buy better second-hand equipment for less than the par value of the obligations outstanding. At all events the trustees of the car trusts feared that they might be forced to liquidate on the equipment. All these circumstances combined to make the position of the equipment obligations conspicuously weak. While a plan of reorganization was worked out in Philadelphia which involved the refunding of the equipment obligations into first mortgage bonds, it was not acceptable to the foreign bondholders and its advocates dared not force the foreclosure of the car trusts.

In the reorganization, the small issue of underlying first mortgage bonds was not disturbed. The bondholders' reorganization committee first offered the holders of the equipment obligations consolidated (junior) 4 per cent bonds involving a reduction of from 2 per cent to 3 per cent interest, and some preferred stock. Finally, after considerable haggling, they received 17 per cent in cash and 120 per cent in consolidated (junior) 4 per cent bonds for the remaining 83 per cent face value of their equipment certificates. (Total car trusts $3,476,000, cash payments $600,000.) The old 6 per cent car trust certificates received in addition 20 per cent in new 5 per cent non-cumulative preferred stock and the old 7 per cent car trust certificates 30 per cent in the same security. Ultimately, with the sale of these securities the holders of the old equipment obligations were able to realize their full par value.

This reorganization of the Denver and Rio Grande was in 1886. The Atlanta, Birmingham and Atlantic, reorganized in 1916, had a similar financial structure—a small, strong, fully secured first mortgage issue, a large volume of equipment obligations, and a host of junior bonds, notes, and stocks. As in the earlier Denver and Rio Grande case, the first mortgage bonds were undisturbed, but in this later case the equipment obligations were practically all paid in money, although the whole mass of junior securities was obliterated, and even receivers' certificates were refunded into income equipment obligations have been either paid in money,[ee] or else assumed directly by the new corporation succeeding to the property of the old one.[ff] In only one instance in the recent history of railroad finance has a reorganization committee forced the holders of equipment obligations to accept a compromise, and in this instance the bonds were issued under an unusual and weak agreement,[48] and in two instances only throughout the varied financial history of our American railroads for the last half-century have the holders of equipment bonds been compelled to assume possession and resell the actual physical equipment itself.[gg] But even in these instances the

---

[46] Paragraphs in report quoted 40 Chron., 181.

---

bonds. This difference in the treatment of equipment obligations in analogous situations in 1886 and 1916 indicates the almost impregnable position they now occupy.

[ee] A suggestive sentence bearing on this occurred in the analysis of various securities of the Missouri Pacific Railway issued by all the reorganization committees at the time of the receivership—"$3,867,000 equipment obligations maturing to June 30, 1918: The equities in the equipment securing these obligations compel provision for their payment in cash."[47]

[ff] A combination of the methods is shown by the St. Louis and San Francisco reorganization plan. The equipment obligations maturing before July 1, 1917, were paid in money from assessments on stockholders; sufficient prior lien (senior) bonds were reserved to refund those maturing after July 1, 1917, while in the meantime they were assumed by the new company.

[gg] These two cases are noteworthy and indicate the fundamental strength of equipment obligations, even if the extreme measures of repossession and sale have to be exercised by the lessor or legal owner.

The first case is that of the unfortunate Detroit, Toledo and Ironton. The road passed into the hands of receivers in 1908 and the latter, finding the business inadequate for the total equipment and the equity of the road in a certain car trust relatively slight, decided to allow the holders of the trust to exercise their legal rights and take physical possession of the rolling stock. The trust certificates were practically all owned by two interests which bid in the equipment itself. Aside from interest on interest, the holders of the equipment obligations lost nothing, as the new owners were able to "peddle out" the equipment for more than the face value of the certificates remaining outstanding.

The other notable case is that of one of the issues of the Buffalo and Susquehanna Railway. This was a very unfortunate venture which, reorganized as the Wellsville and Buffalo Railroad, proved such a failure that it was closed November, 1916, and dismantled. The old Buffalo and Susquehanna Railway had four issues of equipment obligations, A, B, C, D. Three were assumed by an allied company, the Buffalo and Susquehanna Railroad Corporation, which paid them all. The Fourth equipment trust was not assumed. After considerable negotiation the equipment covered by it was sold to a syndicate of Buffalo men. This syndicate subsequently sold holders of equipment obligations suffered no loss, the underlying rolling stock being sold for enough to pay the outstanding certificates. This is a remarkable record for any class of corporate securities. It is even more remarkable, for the protection afforded to the bondholder, than the record of municipal and state bonds.[hh]

---

[47] Analysis dated October 15, 1915, page 3.

[48] Dewing, Financial Policy of Corporation, Vol. I, Ch. V, notes 50, 64 (1920). Wheeling and Lake Erie.

Evident Importance of "Use" Value in Credit.—The strength of equipment obligations is evidence, too, of the importance of "use" value in measuring credit. Reduced to the simplest terms, the reason why railroad receivers and reorganization committees honor the equipment loan above all other forms of permanent debt, is that the road cannot operate without its rolling stock and the owners can remove it physically from the possession of the road. Long ago the holders of first mortgage railroad bonds learned that their lien could be emasculated through the willingness of the court to issue receivers' certificates under the authority of the mandate of public necessity. They cannot remove, physically, their road from the jurisdiction of the court; they cannot even force the receiver to operate the line were he disinclined. No matter what the road cost, no matter what its replacement value may be, they are helpless to enforce their lien. But the equipment bondholders can strangle the operation of the road by removing the equipment beyond the jurisdiction of the receiver. It is this necessity of its use that makes the rolling stock so substantial a basis for credit.

---

the equipment, and in order to give a free title, deposited with the trustee a sum equivalent to the unpaid certificates and their interest to maturity.

[hh] There have been numerous summary statements of the treatment of equipment obligations in specific reorganizations. All these cases are illuminating. The very cases of permanent or temporary default in the ultimate payment of the outstanding equipment obligations, even though these may have been issued without due regard to legal safeguards, emphasize the fundamental strength of equipment obligations as a class.[49] Perhaps the most significant cases of default or temporary sacrifice are outlined in notes.[50]

---

[49] See editorial, 72 Chron. 1296.

[50] For discussion of other reorganization cases see:
Chamberlain, L., Principles of Bond Investment, 300 (1911).
Guaranty Trust Company, Railway Equipment Obligations, 11.
Duncan, K., Equipment Obligations, 229 (1924).

CHAPTER VIII

CONVERTIBLE ISSUES

Securities that are convertible from one form into another are being issued with increasing frequency.[1] Generally speaking such securities are issued in a more secure, less speculative form, and are convertible into some less secure, more speculative form, or else they are short-term obligations convertible into one of a longer term.[a] In accordance with these principles bonds are made convertible into preferred and common stocks, secured notes into debenture bonds and stocks, preferred stocks into common stocks.

Convertible Bonds—Historical Uses.—Convertible bonds have come and gone in financial fashion during the last fifty or more years. They have played, too, no small part in corporate financial history. Daniel Drew used them in the late fifties, as did Jay Gould a few years later in covering himself when caught short of "Erie."[3] Of recent years the most

---

[a] Such general statements are not of rigid accuracy. Although rare, there are cases in which stocks may be converted into bonds: the preferred stock of the Knoxville Gas Company may be converted into bonds. In the cases where stock is convertible into bonds there is ordinarily some earning restriction on the bond to limit the volume of conversion—as the Boise Gas, Light and Coke Company's 6 per cent preferred stock may be converted into the bonds of the company when the net earnings for a three-months' period equal seven-sixteenths of the total interest of the bonds issued and to be issued. In one classic case, that of the old Northern Pacific Railway, there was issued at the reorganization of 1875, an 8 per cent preferred stock convertible into land belonging to the road.[2]

---

[1] For a study of some of the older issues see Rollins, M., "Convertible Bonds and Stocks," 35 An. Am. Ac. Pol. and Soc. Sciences, 579 (1910). See also "Popularity of Convertible Bonds," 42 Railway Age, 404 (1906); "The Convertible Railroad Bond," 45 Ry. Age Gaz., 1518 (1908); many bankers' "articles" have been written on the subject. Gerstenberg, C. W., Materials of Corporation Finance, 324 (1915) reproduces an illuminating circular of Spencer Trask and Co. (1907) describing, in exhaustive detail, twenty-five important convertible bond issues. For use of conversion tables and arbitraging in convertible bonds, see Huebner, S. S., The Stock Market, Chap. XVI (1922).

[2] Daggett, S., Railroad Reorganization, 268 (1908).

[3] For a very readable and apparently accurate account of the Drew and Gould raids on the old Erie Railway, see Adams, C. F., Jr., "A Chapter of Erie," 109 North Am. Rev., 30 (1869), enlarged several times and reprinted in Ripley, W. Z., Railway Problems, Chap. I. Also Adams, C. F., Jr., "An Erie Raid," 112 North Am. Rev., 241 (1871).

notable use of convertible bonds is that of E. H. Harriman in building up the Union Pacific system. His plan was to issue a debenture bond at a price higher than the stock was then selling, and use the proceeds to build up the road or acquire subsidiary lines. Through the wise expenditure of the proceeds he so increased the earning capacity of the road that the stock increased in value beyond the rate at which the bonds were convertible. The holders of the bonds forthwith converted them into stock, and the road was relieved of its bonded liability. Reduced to its simplest terms the device consisted in selling stock for more than it was worth, and then using the proceeds to establish its worth.

The first use of this plan is a classic instance in railway finance. Between 1898 and 1901 the Harriman interests had entirely recovered the old lines of the Union Pacific Railway, lost through the failure of the road. They sought further expansion, but the Union Pacific Railroad's own earnings, liberal though they were, could not afford a large enough fund. Accordingly, the Union Pacific issued $100,000,000 4 per cent bonds, convertible into common stock at par before May 1, 1906, and sold them to the stockholders at par. Considering the Union Pacific's credit in January, 1901, the straight bonds could not have been sold on a 4 per cent basis. Yet with the rapid increase of the Union Pacific's earning capacity the stockholders were willing to pay more for the bonds with this convertible privilege than for a straight 4 per cent bond. With approximately $40,000,000 of this amount the Union Pacific completed its majority ownership of the Southern Pacific Company, and a considerable part of the remaining $60,000,000 was used to acquire a large interest in the Northern Pacific Railroad. During the next four years the Union Pacific was very successful, and by April, 1906, its common stock had risen to over $150 a share. Consequently practically all (except less than $500,000 out of $100,000,000) of the holders of the convertible bonds had converted them into stock before the conversion privilege ceased on May, 1906. The great advantage of this whole transaction to the Union Pacific Railroad was that it had been enabled to get a large sum of money at a low rate of interest—and subsequently, through conversion, a direct bonded liability refunded into stock. The device was so successful that it was used by the company several times later, the converting ratios being raised as the market value of the stock became stabilized at prices well above par.[4]

Conversion Security of Bonds.—In the contract or statement covering the convertibility of a bond there are usually conditions defining: (1) the kind of security into which the bond may be converted; (2) the percentage of the par value at which the security must be accepted; (3) the time limits during which the convertible period extends. In unusual cases, certain other conditions are mentioned: such as the earnings requirement of the company at the time of conversion, the surrender of specific warrants in order to secure conversion, or even the right of the directors of withdrawing the privilege.

The security into which a bond or note may be converted is usually some form of stock. Instances, however, exist in which a short-term obligation may be converted into a longer-term bond and this privilege has been very commonly attached to public utility short-term notes issued after 1910.[b] In the

---

[b] From an examination of upwards of 40 public utility short-term notes sold since 1910, it was found that over a third contained the privilege of refunding into the longer-term bonds. The practice is not confined, exclusively to public utility short term notes; among railroads, the Southern Railway's Convertible Collateral Trust 6s, 1911, were convertible into 4 per cent General Mortgage Bonds of the same company, and the Tidewater Company's Convertible Collateral Trust 6s of 1913, were convertible into the First Mortgage 5 per cent Bonds of the Virginia Railway Company. During the Great War, European nations resorted to the same expedient—issuing short-term notes convertible into longer-term government bonds of regular form. Frequently, especially with corporate issues the short-term notes are secured by the collateral deposit of the very bonds into which the notes may be converted. In such cases it is contemplated to refund the notes partially through conversion into the bonds and partially through the sale of the bonds to the bankers. Such conversion, therefore, renders the funding or final payment of them both easier and cheaper.

---

[4] For detailed description of the whole transaction, see Mitchell, T. W., "The Growth of the Union Pacific and its Financial Operations," 21 Quart. Jour. Econ 569 (1907).

vast majority of cases, however, a form of funded debt, if convertible, is convertible into stock—generally, too, into the common stock,[c] although instances of bonds convertible into the preferred stock are known. This is particularly true of small industrial companies, the controlling interests not wishing to jeopardize their control through the issue to the public of bonds having conversion privilege. In such cases, however, the preferred stock must bear a conspicuously larger yield than the bonds in order to render the conversion privilege valuable. An increase of merely 1 per cent in income will not, ordinarily, induce bondholders to convert first lien bonds into a junior lien stock.[d] Ordinarily the common stock into which the bond may be converted has little value when the bond is issued, so that the convertible feature adds little attractiveness to it. To give more substance to the convertible privilege the bond is sometimes made convertible into either common or preferred stock,

---

[c] Out of a random selection of 22 issues of railroad convertible bonds outstanding in 1915, 21 were convertible into common stock. One was convertible into preferred stock. Of a random selection of 31 public utility convertible bonds 22 were convertible into common stock. Six were convertible into preferred stock and three into other bonds.

Friedlander found as follows[5] for industrial bonds and notes issued between January 1, 1914 and January 1, 1924:

TOTAL CONVERTIBLE

	Bonds (853)	Notes (278)
Number	741	223
Percentage of Non-Convertible	87%	80%
Into Common Stock:		
Number	79	34
Percentage of Convertible	70%	62%
Into Preferred Stock:		
Number	29	12
Percentage of Convertible	26%	22%
Into Both:		
Number	4	5
Percentage of Convertible	3%	9%
Bonds:		
Number	0	4
Percentage of Convertible	0%	7%

[d] The First Mortgage 5 per cent Bonds of the American Agricultural Chemical Company are convertible into the 6 per cent preferred stock. The privilege has been seldom used. An investor would indeed be foolish if he sacrificed the fundamental security of a first mortgage lien with assets at least five times the bond issue in order to gain merely an additional income of only 1 per cent.

---

[5] Friedlander, A. J., Statistical Study of Industrial Bonds and Notes Issued between January 1, 1914 and January 1, 1924, Harvard Graduate School of Business Administration (1925).

or into both. The option privilege is the commoner.[e] When the securities carry the mixed-conversion privilege, the bond- or noteholder is allowed to convert his obligation into two or more kinds of securities, usually the preferred and common stocks.[f]

Conversion Security of Preferred Stock.—Preferred shares, when convertible, are almost invariably convertible into common shares. The conversion privilege in such cases is usually attached to the preferred stock for the purpose of attracting the elusive "speculative investor," as the genus is called, who wants security and regularity of income at the same time that he holds the opportunity of participating in any extraordinary profits to be realized in the future. Clearly, such convertible preferred shares are of commonest occurrence in the manufacturing field, where the lure of sudden and marvelous profits holds more promise than in the prosaic fields of the railroad and public utility industries.[g] Ordinarily when these industrial convertible preferred shares are offered to the public, the common stock into which they are convertible is without substantial value; subsequently the unexpected may happen and the industrial enterprise develop into a success, in which case the conversion privilege becomes of value. Less commonly, the convertible privilege is attached to preferred shares of a reorganized company so that every possible privilege may be accorded the holder of such shares in return for the sacrifice he is called on to undergo in the reconstruction. It is in this connection that the conversion privilege usually enters into the preferred stock contract of railroad corporations.[h] Sometimes again, the conversion privilege is attached to the preferred stock as part of the solution of a highly complex financial readjustment, in which case the conditions controlling the conversion are likely to be complicated.[i] As with bonds, there is quite frequently a mixed or optional conversion,[j] often a second preferred stock is given the option of conversion either into the first preferred stock or the common stock, or both.[k]

---

[e] A typical option privilege is that of a large part of the preferred stock of the Seaboard Air Line Railway. See note (i) below. A rather unusual instance of the option privilege is afforded by an issue of convertible notes of a southern traction company, the Norfolk and Portsmouth Traction Company. The holder might convert the notes into the first mortgage bonds of the company, taken at 90 per cent, or into certain general mortgage bonds of an allied company, taken at 85 per cent.

[f] Thus, in the case of the Kansas City Railway and Light Company Convertible Collateral Trust 6s, 1912, a noteholder was allowed to convert one note par value $1,000 into $700, par value, of preferred stock and $650, par value, of common stock. The Denver Tramway Company's 6 per cent Notes of 1919, par value $1,000, were convertible into $1,000 7 per cent preferred stock and $250 common stock.

[g] Such tactics are, however, by no means unknown in the railroad field. In 1904, with its stock quoted at approximately $50 a share, active and a favorite play for the speculators, the Southern Pacific Company sold an issue of preferred stock convertible into common stock at its par value. In 1909, the company, having prospered, redeemed some of this convertible preferred stock at $115 and the rest was converted into common stock. The 6 per cent cumulative preferred stock of the Atlantic Gas and Electric Company was convertible into the common stock of the company.

Conversion Ratios.—Second only in importance to the kind of security obtained through conversion is the ratio of conversion. This is the percentage of its par value at which the new stock must be taken in exchange for the convertible issue. It varies greatly, although by far the commonest is that of an even exchange—a thousand dollars par value of stock is given for a thousand dollars of bonds.[1] Among railway issues the converting ratio is quite apt to be more than the par value of the stock—in some cases even as high as 200 per cent. Ordinarily the conversion ratio of railway issues is placed at considerably above the current market of the stock at the time of the bond issue, and experience has shown that between the panic of 1907 and the Great War, there was little to be gained by investors in railroad convertible bonds through the conversion of their security into stock. In the ten years before 1907, however, the conversion, even at high ratios, proved frequently a source of considerable profit through the rise in market value of railway common shares. Obviously the reason for permitting the purchase of the common stock for less than its par value through convertible bonds, is the desire to give the con-

---

[h] The simplest illustration of this principle in recent financial history is the 5 per cent convertible preferred stock (convertible at par into common stock) into which the old First and Refunding 5 per cent and Collateral Trust 4 per cent Bonds of the Missouri Pacific Railway Company were refunded at the time of the reorganization.

[i] Of $27,280,000 preferred stock of the Seaboard Air Line Railway, $25,000,000 was convertible at the option of the holder after July 1, 1916, and prior to July 1, 1921, either into preferred stock at par, entitled to non-cumulative dividends at the rate of 5 per cent per annum before any dividend is declared on the common stock, or, at the option of the holder, at two-thirds of par into preferred stock entitled to 6 per cent non-cumulative dividends, and one-third of par, into common stock.

[j] An excellent illustration of this was that of the stocks of the Associated Merchants Company. The first preferred stock was entitled to 5 per cent cumulative preferred dividends and was convertible at any time into either the 6 per cent cumulative second preferred or else the common stock.

[k] The second preferred stock of the Reading Company was convertible into half first preferred carrying the same rate of non-cumulative dividends and half common stock. A similar conversion privilege belongs to the second preferred stock of the new (reorganized, 1915) Wabash Railway. The device has also been used in public utility financial plans as a makeshift when it seemed expedient to create a security half-way between the preferred and common stock, but which it was hoped would be eliminated as soon as the enterprise became firmly established.

---

[1] Out of the random selection of 22 railway convertible bonds referred to earlier (note c above) 12, or a little over half, were convertible at par. Of the remaining 10, 7 were convertible at a higher ratio than par for the stock and 3 at a lower ratio. Of the 31 public utility convertible bonds, 25 were convertible at par and 6 at a ratio higher than par, and none at a ratio lower than par.

The following table gives the conversion ratios and brief description of some of the well-known railway issues. (This table is not intended to be exhaustive.)

CONVERSION RATIO AT PAR

Railway	Description of Bond	Due Date	Conversion Security	Conversion Ratio	Time Limits of Conversion
Atchison, Topeka & Santa Fé	4s	1960	Common stock	.....	1913–1923
New York, New Haven & Hartford	6% deb.	1948	Common stock	.....	1923–1948
Norfolk & Western	4s	1932	Common stock	.....	1917–1932
Chesapeake & Ohio	4½s	1930	Common stock	.....	1911–1920
Chicago, Milwaukee & St. Paul	4½s	1932	Common stock	.....	1917–1922

CONVERSION RATIO ABOVE PAR

Railway	Description of Bond	Due Date	Conversion Security	Conversion Ratio	Time Limits of Conversion
Delaware & Hudson	4s	1916	Common stock	200%	1907–1917
Pennsylvania Railroad	3½s	1915	Common stock	150%	No Limit
New York, New Haven & Hartford	3½s	1956	Common stock	150%	1911–1916
Baltimore & Ohio	4½s	1933	Common stock	110%	1913–1923
Union Pacific	4s	1927	Common stock	175%	1907–1917

CONVERSION RATES BELOW PAR (VERY RARE)

Railway	Description of Bond	Due Date	Conversion Security	Conversion Ratio	Time Limits of Conversion
Erie Railroad	"Series A" 4s	1953	Common stock	50%	1905–1915
Erie Railroad	"Series B" 4s	1953	Common stock	60%	1907–1917
Erie Railroad	"Series D" 4s	1953	Common stock	50%	1918–1927
Maryland & Pennsylvania	6% Notes	1923	Common stock	50%	No Limits

version privilege some pretense of worth when the common stock, issued on the presumption of anticipated earning power, shows no signs of commanding its par value on the open market for an indefinitely long period. If the conversion rate is made sufficiently low, any bonds may be made marketable through the allurement of a speculative profit.

When the ratio at which the conversion is made is based on some complex fraction, there arises a problem of adjusting a difference between the par value of the bonds and that of the stock.[m] In such cases the corporation will give stock or bonds to the nearest even issued par value, and either fractional warrants or else cash—in rare cases—for the remainder. When fractional warrants are given, they may be brought together in sufficient amounts to be exchanged for whole shares or bonds. In some very rare cases the holder of the convertible bond may be required to subscribe to the stock in cash, in order to secure an even conversion.[n]

The demands of electric light and power companies for capital have been so great during the decade from 1915 to 1925 that one would expect to find—as is actually the case—a great variety of conversion expedients adopted by the managers of these enterprises in order to secure capital. In many instances the conversion privileges originally were worthless. They were created merely to supply security salesmen with talking points in order to enable them to dispose of junior securities in a market already glutted with debenture bonds and preferred stocks of electric companies. During the last two years of the decade mentioned the rise in value of the common shares of electric companies has given to these conversion privileges a real value.[5]

---

[m] Thus, with a ratio as intricate as 1:1.33737+ (at one time the conversion ratio of one of the American Telephone and Telegraph Company's issues) it is absolutely impossible to exchange the bonds and stock on an even basis.

[n] These various contingencies are shown by a few illustrations. If a bondholder had presented for conversion $1,000 par value of American Telephone and Telegraph Convertible Debenture 4s of 1936, he would receive seven shares of stock and $63.88 in cash. American Gas Company Convertible Collateral Trust 6s, 1914, were convertible into common stock taken at 105 per cent of its par value. But instead of adjusting the fraction by script the company required a noteholder to pay the premium of $50 for each $1,000 note in order to secure ten shares of stock.

Convertible Short-Term Notes.—Reference has been made already to the frequent occurrence, especially during the period of the Great War, of short-term public utility collateral trust notes convertible into long-term bonds. The conditions leading to the issue of notes of this character are almost the same in all instances. The public utility company is confronted with large expenditures for expansion or improvements. Long-term bonds cannot be sold to pay for these improvements as the earnings of the old property are insufficient to form an adequate basis for the credit of the new bonds, and the earnings from the improvements cannot be made available until after they are paid for. The bonds secured by a mortgage on the new property are, however, issued. These are deposited with a trustee and three- or five-year collateral trust notes are sold, convertible into the bonds. At the time of issue this conversion privilege is without value, but as the profits on the operation of the new property begin to be reflected in the general earnings of the company the prospective open market value of the issued but unsold bonds rises sufficiently high to induce bankers to purchase them without too large a discount. Some discount, however, there surely will be, and the notes are made convertible at the prospective market price of the bonds.[6] Through this conversion a considerable portion of the entire note issue will be canceled, thus simplifying and making easier the sale of a sufficient number of the deposited bonds to pay off the rest of the notes. The company should be careful, however, not to set the conversion ratio too low—unless it makes the notes callable before conversion—otherwise the improvement in the credit of the com-

---

[6] As the Twin State Gas and Electric 6 per cent Notes, due 1916, convertible into the First and Refunding Mortgage Bonds of the same company at 93.

---

[5] The example of the Northern States Power Company is a case in point.

pany will benefit the noteholders rather than the company itself.[p]

Double Conversions.—In a few cases two or more issues of bonds are convertible into the same issue of stock. When the ratio of conversion is the same for all the issues, there is no speculative advantage of one issue of bonds over the other; and the only thing for investors to note is that stock, with large issues of convertible bonds that may be converted at any time, will with difficulty rise in market price above the conversion ratio. For example, there have been at one time, three separate issues of debenture bonds of the Atchison, Topeka and Santa Fé Railroad, all convertible into the common stock at par.

Difficulty arises when a corporation creates two issues of bonds convertible into the same stock at different ratios. In a sense there is injustice if the later series of bonds may be converted on more favorable terms, because the holders of the earlier series have no means of protecting themselves. For example, in 1909, when its stock was selling above 120 per cent, the Southern Pacific Company issued $81,000,000 of 4 per cent bonds convertible into stock, taken at $130 a share. In 1914, owing to a lessened credit and higher general interest rates, with its stock selling well under its par value, the company issued $54,000,000 5 per cent bonds convertible into stock taken at par. Obviously, bonds of the latter series were much to be preferred; and with their issue the market price of the 4 per cents fell below what it would have been had the 5 per cent bonds with the lower conversion ratio never been issued.

---

[p] The case of the Central New York Gas and Electric Company is in point. This company sold $150,000 6 per cent notes in order to help pay for its properties and improvements in 1911 about the time it was organized. There were only "prospective earnings" to show to the investor and the company had placed a considerable issue of first mortgage bonds upon its property. To make the notes attractive, they were made convertible, after October 1, 1915, into the first mortgage bonds at 85 per cent—the price at which the company would presumably sell the bonds to bankers. At the same time the notes were made callable at par on October 1, 1915, or on the very date when the conversion privilege began. By October 1, 1915, in spite of the depression caused by the war, the earnings of the company had so improved that the long-term bonds could be sold to bankers at a price above the conversion ratio. Accordingly, the company called and paid the notes before the noteholders had an opportunity to convert them. Details of this promotion, Book II, Chapter VI, note (e).

Convertible preferred and Class A common shares are of frequent occurrence. Convertible shares are of greater frequency in the railroad than in the industrial or public utility fields.[q] In the case of railroad preferred shares the ratio is almost invariably par for par[r] whereas there is a wide and divergent range of conversion ratios for industrial preferred shares. The General Asphalt Company's 5 per cent cumulative preferred shares, for example, may be converted into common shares, the latter to be taken at 66 2/3 per cent of their par value. Variations in the conversion ratio are to be observed especially among the more highly speculative industrial stocks, which came into prominence during the earlier years of the Great War.[s] Subsequently, with the rise into prominence of two classes of common stock, the convertibility of one class into the other was of frequent occurrence. In fact, before this, in the period from 1919 to 1923, when the majority of new incorporations had a no-par common stock, it was quite usual for a preferred stock to be convertible into from one to five shares of no-par value common stock.[t]

---

[q] A study of preferred shares (random selection) made in 1924 shows the following results:

	Total Issues Examined	Convertible	Percentage Convertible
Railroad	47	7	14%
Public Utility	49	1	2%
Industrial	165	12	7%

[r] True of every case studied.

[s] The Willys-Overland Company had been formed in 1912—an exorbitantly over-capitalized automobile business. Its common stock represented merely potential earning capacity. Yet, during 1914 and 1915, so great were the profits in the automobile industry that the common stock rose to over $260 a share in November, 1915. Seeing an opportunity for further inflation the management retired the old preferred stock and sought to sell to the common shareholders new preferred stock at 102½ per cent. To add to the attractiveness of the offering, the preferred stock was made convertible into the common stock at $300 a share—the largest conversion ratio the writer has observed.

[t] Pierce Arrow Corporation prior preferred was convertible into five shares common stock and United States Distributing Corporations preferred shares were convertible into four shares of common.

Periods of Conversion.—The third important feature of convertible securities concerns the time and the period during which conversion may take place. When the life of the bond issue is short, the conversion period usually extends from the date of issue, or a few years after, to the date of maturity. When the bonds are long-term, especially if they are the bonds of railroads, the conversion period usually comprises only a part of the life of the bond.[u] It begins some years after the bonds are issued and ends some years before the bonds mature. In case of public utility and industrial bonds which are, as classes, of shorter life than the railroad bonds, the conversion period is apt to coincide more nearly with the dates of issue and maturity. In rare cases, the conversion period is split up into smaller periods during each of which there is a different ratio.[v] With convertible stocks fixed time limits are unusual.

Frequently only a part of an issue of bonds is convertible. Sometimes the issue is originally created in two parts, one convertible and the other not convertible, and sometimes part of an issue is subsequently endowed with the convertible feature because of some special reason.[w] Such cases are very annoying, because if the convertible feature possesses value the issue will have two market prices. Analogous to this are the few cases in which the bond and its conversion privilege are separate physical entities, as when the bond stands alone as an inconvertible obligation unless accompanied by a separate warrant which permits the conversion. In such a case the bond will have one market value and its conversion privilege another.[x]

---

[u] Investors have sometimes lost an opportunity of profit through neglecting to avail themselves of conversion, finding that after the period of convertibility is past, the bonds become less valuable. The Brooklyn Rapid Transit Company's 4 per cent Bonds, due 2002, were convertible into stock up to July 1, 1914. On June 30, the stock was quoted at $93 a share, and the bonds, being convertible on an even basis, were quoted at 93 per cent. On July 1, an investor who had neglected to take advantage of the convertible feature of his bonds found to his dismay that his bonds would only command a market price of 81 per cent—their value as a straight investment.

[v] For illustration, the Southern Railway Company issued in 1908, $15,000,000 three-year 6 per cent convertible notes. During the first year they were convertible into General Mortgage 4 per cent Bonds at a ratio of 80. During the second year they were convertible at 82½ per cent and during the last year at 85 per cent.

Perhaps the most extraordinary of these varying conversion ratios is that of 6 per cent one-year notes of the Gas Securities Corporation, issued in March, 1913. Between March 10, 1913, and May 10, 1913, each $1,000 note entitled the holder to purchase for $1,000 cash $1,000 preferred and $300 common stock of the Utilities Improvement Company. Thereafter each month the amount of common stock was lowered by $10, so that in the last month of the twelve $1,000 in preferred and only $200 in common was given for $1,000 cash. The note itself was accepted at its par value instead of as cash.

In the somewhat unusual case of the New Haven Water Company's 4½ per cent Debentures of 1962, the company may convert them into stock before 1925 and the holder at a later date.

Main Purpose of Convertible Issues.—The purpose of all convertible issues is to enable the corporation to obtain a market price for an issue of securities which would be impossible without the convertible feature. It is by no means a subterfuge resorted to by weak corporations. The Pennsylvania, the Delaware and Hudson, and the New York, New Haven and Hartford railroads in the periods of their greatest strength sold convertible bonds. Yet with the few exceptions in which conversion is resorted to for purpose of avoiding local taxation,[y] the convertible security is created in order to meet the public demand for a security combining apparent safety of principal with speculative opportunity for enhancement in price. Its value is therefore the resultant of two distinct and incommensurable factors—certainty and chance of appreciation. One represents the value of the security by reason of its inherent strength as a direct obligation of the corporation. This value is independent of the conversion privilege and would remain unaltered were it taken away. The other element represents the value attaching to the privilege of convertibility. In the case of a bond this latter is a direct function of three independent variables: (1) the margin of earnings of the corporation above its interest charges; (2) the market price of the stock into which the bond may be converted; and (3) the time during which the convertibility continues. All together these variables measure the possible profit to be realized through conversion, and therefore the value of the convertible privilege merely as a possible chance of profit. In the case of a convertible stock, the market price is the resultant of the two former variables only, and is sometimes easier to estimate as it is not restricted in time.

---

[w] For example, the Seattle Electric Company had outstanding $5,000,000 Consolidated and Refunding Mortgage 5 per cent Bonds. Nothing in the original mortgage indicated any convertible privilege, yet by means of a supplemental agreement, $1,500,000 of the issue were made convertible before August 1, 1912, into common stock of the company, taken at 110.

The strange division of the preferred shares of the Seaboard Air Line Railway (note [i]) was due to a consolidation in 1915, in which two different kinds of securities were refunded by means of the issue of preferred stock.

[x] Such was the case of the American Power and Light Company 6 per cent Debenture Notes. These were issued in 1911. A detachable and transferable warrant was issued at the time, by which the holder could either convert the note, or another of the same denomination, into common stock or else subscribe for common stock at par. The same device was adopted in connection with the sale in 1916 of the 100-year 6 per cent debentures of the same company. At the time the latter were issued the straight bond possessed a market value of 88 per cent and the separate conversion warrant a market value of $6 per $100 of converting privilege.

In June, 1916, the stockholders of the Northern States Power Company were offered option warrants to convert upwards of $8,000,000 6 per cent notes into either preferred or common stock of the company. The warrants were offered by the company at $3 each—each warrant enabling the conversion of $100 par value of notes. The privilege was restricted to the period from April 1, 1918, to April 1, 1922.

[y] These cases are rare but illustrate excellently the anomalies of our local tax laws. For example, the Augusta, Hallowell and Gardiner Railroad has outstanding an issue of 4 per cent bonds maturing in 1951, and convertible at any time into preferred stock secured by the bonds and to be

From an investment point of view this union of apparent security with possible increase of value is a mistake. The investor for income is required to pay for the conversion privilege which he does not care for, and the speculator is required

---

redeemed by the company in 1951. In other words, the preferred stock is to all intents and purposes the same as the bonds—except in name. Yet, because of the name, the stock is non-taxable in Maine and many other states, while the bonds are subject to local taxation. A conversion would be made, therefore, solely to avoid taxation.

[2] If the earnings of the corporation are so low that there appears to be little or no prospect that the stock will be worth the conversion ratio, the presence of the convertible feature will add no value. In 1914, the Missouri Pacific Railway Convertible 5 per cent Bonds were quoted at 36 per cent with the Missouri Pacific Railway stock selling at $12 a share—and the railroad showing a deficit in earnings above charges. This indicated a market value for the convertible bonds no higher than that of the non-convertible bonds of the corporation. When originally issued these bonds had, undoubtedly, a higher market value, a wider market, and an easier sale by reason of the convertible claim. Cases may be often found in which the conversion privilege of an actively quoted bond has only a theoretical significance, and a negligible influence on the market value.

to pay for apparent security, which he does not want. Moreover, convertible bonds of unsubstantial security may often command a market price, through the presence of the conversion privilege, which brings them into the class of bonds of high security. In this manner the investor deceives himself into believing that the convertible bond is a higher security than it is, or else deceives himself into believing that he is getting the conversion privilege without paying for it—getting something for nothing.

BOOK II

PROMOTION

CHAPTER I

THE PROMOTER

Definition.—The initial process underlying all other processes and steps of corporation policy is the organization and establishment of the corporation as a going enterprise. This is promotion. It is logically and temporally first. All business enterprises arise first in the mind of a single man or a small group of men, and become actual only through the co-operative effort of many working toward a common end. In simple stages of industrial organization the promoter merely "started in business" in his own house or shop or on his own farm. But as business enterprise has become more intricate, especially when conducted under the form of the corporation, promotion has become correspondingly intricate, involving the co-operation of a specialized kind of entrepreneur ability and large amounts of capital. The former is represented by the promoter and the latter by the banker.

There have been many definitions of promoter.[a] Perhaps the best is that of Cook. A promoter is a "person who brings about the incorporation and organization of a corporation. He brings together the persons who become interested in the enterprise, aids in procuring subscriptions, and sets in motion the machinery which leads to the formation of the corporation itself."[2]

At all events, however the term is defined, it is wrong to look upon the promoter as an unprincipled charlatan who is always trying to exploit some worthless invention. There are

---

[a] One old legal decision stated that promotion is "a term not of law, but of business, usefully summing up, in a single word, a number of business operations familiar to the commercial world, by which the company is generally brought into existence."[1]

---

[1] Armstrong v. Sun Print, etc., 122 N. Y. Suff. 553 (1910) cited, 38 Harv. L. R. 890.

[2] Cook, W. W., Treatise on the Law of Corporations Having Capital Stock, § 651.

promoters of this type; but it is unfortunate that many people have come to regard all promoters with suspicion and fail to distinguish between the honest and the dishonest—a distinction which must be made throughout all mankind.

It has been well said that "the promoter performs an indispensable function in the community by discovering, formulating, and assembling the business propositions by whose development the wealth of society is increased."[3] The vast majority of economic students represent the promoter as serving a useful and important end. Professor Heilman has very succinctly expressed this usefulness: "No enterprise of any importance can be inaugurated without the services of a capable promoter and organizer. He is the man who sees the opportunity, who can make others see it and believe in it, who organizes the plans and pushes them to completion."[4]

stages · promotion

Stages in Promotion.—In general, there are five stages in the promotion of a business enterprise of some size. The first is the conception of the enterprise by the promoter; the second is the working up of the details of the enterprise, again by the promoter; the third is the formulation of the financial plan, usually the joint effort of the promoter and the banker; the fourth is the formation of an underwriting syndicate by the banker; and the last is the sale of the securities of the enterprise to the public, from whom ultimately the capital is obtained. It will be observed that the first two stages are entirely the work of the promoter and therefore relatively simple. They will be discussed in the present chapter. The remaining three stages, discussed in succeeding chapters of Book II, are more complex, as they involve many different interests.

All business enterprises owe their existence, in the beginning, to the imagination of some one man. Very frequently he co-operates with others, so that the original plans appear to be the results of the joint efforts of a group of men. The American Telephone and Telegraph Company owed its existence to the imagination of Alexander Graham Bell and his enthusiastic confidence in the commercial adaptability of the telephone, but the success of the company in its earliest years was due quite as much to the financial skill of another man, the advertising ability of still another, and the power of organization of yet another. In one sense, Bell was the promoter of the telephone company because he conceived the instrument and foresaw its economic significance. But in another sense, his associates are all to be looked upon as promoters because their united efforts were required to launch the new undertaking. A promoter, or the group of men whose united efforts carry through the work of promotion, must therefore not only possess a prophetic insight, but also the power of transforming a vision into a definite instrument of economic usefulness. In other words, he must possess what might be called business imagination. The work of the promoter is thus twofold; it embraces both the conception of some economic project and the formulation of the means for realizing it.[b] The promoter conceives and plans the enterprise. But the means at his disposal will vary greatly according as the business he proposes to establish is based on a new invention, or merely on the development or extension of some previously existing business. The promotion of the telephone is an illustration of the former, that of a new railroad or cotton mill of the latter. In order to avoid too broad generalities, it is best to consider the promoter first in the rôle of the exploiter of a new invention, and second as the leader in the extension of an established industry.

---

[3] Mead, E. S., Corporation Finance, 23 (1915).
[4] Heilman, R. E., 23 Jour. of Pol. Econ., 895 (Nov. 1915).

Promoter and Inventor.—The promoter of a new enterprise may be the inventor. Ordinarily, however, he is not. The inventor is usually a man of mechanical skill and clever originality, but quite frequently he is unaccustomed to give economic values their full significance. He is what is often called an "impractical genius." Almost invariably he overestimates the importance of his invention and through long study or brooding magnifies its social significance. The successful promoter, on the other hand, is first of all a man of great common sense. He is worldly wise in that he has a broad background of experience culled from many failures and perhaps a few successes. He can apply rigid tests to the enthusiasm of the inventor. He can probably set values on the invention in terms of the cold facts of costs and the inflexible law of supply and demand, for he well knows that many excellent inventions are worthless from the business point of view because of prohibitive costs of production or restricted demand. In isolated cases where the invention is some simple "lucky idea," an inventor may play the part of the promoter and exploit his invention through a company which he himself organizes; but the psychological characteristics of the inventor and of the man who can transform the invention into a business are so different that they are not ordinarily found combined in the same personality.

---

[b] To the student of the fundamental conceptions of business enterprise there is much interest in this dual functioning of the promoter. It is suggestive of the Hegelian dialectic—a vague plan, developing into an actual, workable, existential reality through the arbitrary conditions of the existing limitations of contemporary business.

Promotion of an Invention.—When a new invention is presented to a promoter, the first matter that he must attend to is that of patents.[c] No business can be based on an invention, discovery, or even a "trade-mark" unless it may be protected by the courts from infringements. Especially is this true if the invention pretends to cover some fundamental idea admitting of a variety of modifications and adaptations which duplicate the purpose of the invention without infringing the letter. In such cases a competitor may spring up, should the new invention prove successful, and sell a large quantity of goods on the strength of the advertising program paid for by the original company.

---

[c] Much has been written concerning the promotion of companies intended to exploit a new invention. The best general discussion is a very readable book by Conyngton, Hugh R., Financing an Enterprise (1921).

At the time of the exploitation of the vacuum bottle there was no fundamental basic patent, and as soon as one company had made a market for the goods, competitors sprang up who could sell goods that were identical in all respects except name. As the original company had made the mistake of fixing the retail prices too high, the competitors secured a wide market and liberal profits by selling what was in truth "the same thing" at a distinctly lower level of price. Many instructive anecdotes of a similar nature are given in Rowell, G. P., Forty Years an Advertising Agent.

A number of accounts have been written covering the promotions of highly speculative companies organized to exploit a new invention. See the excellent discussion under captions: "Investigation of Speculative Enterprises," "Investigation of Speculative Enterprises-Inventions," "Necessity and Methods of Protection," "Monopolies," "Patents," "Trade-Marks, Trade-Names and Copyrights," and "Protecting a Process," in Conyngton, Hugh R., Financing an Enterprise, Chaps. XII-XVIII (1921); see also Conyngton, Hugh R., Corporation Procedure, Chaps. XIX-XX.

After being assured that the patents or licenses under which the invention is to be sold constitute a substantial protection which the courts will uphold, the next step of the promoter is to consider the market. It may seem more logical for the promoter to determine first the cost and probable selling price, since the latter will influence the demand, but in practice his concern is with the demand at some approximate price, in order that he may decide whether or not to proceed with a further investigation. In case the new product is intended for general consumption he has absolutely no test to apply in regard to the magnitude of the possible sales at some assumed price. It may "take," in which case the new product may experience an enormous quick but transient demand, or it may meet a steadily increasing demand somewhat proportionate to the extent of the advertising. More probably—and this is the fate of the vast majority of new inventions placed on the market to meet a popular demand—there will be a few sales in response to a comparatively large expenditure for advertising, but these will cease entirely when the advertising ceases. In such case, the new invention is, in the plain language of business, a failure.

The exploitation of patented articles that are to be sold to manufacturers is not quite as uncertain as that of articles made expressly to satisfy a real or anticipated popular fancy. If the article is intended to meet a special demand on the part of manufacturers, as an automatic attachment for a loom or a simplified high tension transformer, the task of predicting the possible demand is relatively easy. The ultimate success of the patented article will rest, very largely, on a careful computation of the amount the manufacturer will save in the costs of production by the introduction of the new device.

The more progressive manufacturers will adopt the improvement if there is the slightest hope of decreasing costs, others will adopt it only as a last resort after its economy has been proved over and over again. The vast majority of manufacturers will occupy the middle ground. If the promoter has a meritorious attachment or improvement that can be counted upon to reduce the costs appreciably, so as to save an amount considerably in excess of the investment required to install it, he can compute with a surprising degree of accuracy the upper and the lower limits of its demand. The success of the company promoted to sell the new device will rest, then, on its ability to meet this demand at a price that yields a profit.

Having estimated, or rather guessed, the probable demand for the new article, the promoter will probably retrace his steps and determine more exactly the cost of manufacture and the margin of profit at the assumed selling price in order that he may correct the latter. These estimates of cost of production, inasmuch as they are dependent on demand, which is itself a function of price, will be merely approximate, yet they will be sufficiently accurate for all practical purposes. In case the article is for general demand, the most difficult element of the cost to determine will be that of advertising and marketing. For details in this field the promoter will probably draw liberally on his own experience, reinforced by that of advertising managers who give their advice either independently as "experts," or else as employees of advertising agencies. If the article is easily made, the promoter will probably secure estimates for its manufacture, preferring not to use the little capital at his disposal in erecting a plant for the new company.

After he has assured himself of sufficient information to feel confident that the exploitation of the invention will be profitable, the promoter must organize a company and secure the necessary capital. If, as in the cases now under discussion, the company is to produce and sell an altogether new article, only common stock will be issued, some of which at least the promoter must sell. The remainder not offered to outside partners, will be divided between him and the inventor. Quite generally the promoter will try to interest some capitalist in the invention, who will supply the money necessary to start the company; less often the stock will be offered to the public according to methods to be described subsequently. If these latter methods have to be employed, the invention is probably of little value, as a promoter will find no difficulty in securing private capital if the invention promises to be of merit.

After all has been said, one must conclude that the exploitation of a new invention, intended to meet a general demand—like a new collar button, a new vacuum bottle, or even a new camera—is at best a mere gamble. The psychology of "the people" is so complex that the value they will place on a new article is absolutely unpredictable; the public buys because a new device or a new toy takes its fancy, whether it be autographic cameras or automobiles. The best that the promoter can do is to distribute his risks by giving a variety of new inventions a chance to show their power of attracting the public demand and investing in each at first only enough to test the probable market. The successful promoter of such enterprises gradually acquires skill in interpreting the probable market for the article from the first signs of the public's attitude toward it. But even with the most consummate skill at his command, such promotions are mere gambles.

So far in this discussion, we have assumed that promotion deals with a new invention. But the vast majority of promotions deal with the development of an industry already established, so that the exploitation of the new invention may be neglected in the subsequent discussion of this book, except for a few comments concerning the sale of highly speculative stocks in the chapter devoted to that purpose. (Chapter X.)

In the promotion of enterprises in an industry already well known, there are deeply cut paths for the promoter to follow. It may be that he builds a new railroad, a new gas plant, or a new mill, in which cases there are well-established precedents to guide him. He may promote a consolidation of previously existing railroads, lighting companies, or manufacturing units, in which cases again he has established precedents at his command. The procedure in the two cases of building a new business and of consolidating previously existing businesses is somewhat different at many points. It is therefore convenient to consider the two types separately. And even in the promotion of new enterprises the work of launching a public utility company—railway, lighting, or traction—is so different from that of starting a new manufacturing establishment, that these two kinds of promotion can be understood best if they are treated separately.

Promotion in the Railroad or Public Utility Field.—The promoter of a new railroad[5] is likely to be a civil engineer who has had experience on the engineering staff of a railroad. This is true provided the road is a new project and not merely the branch extension of a previously existing system. Such railroads are relatively rare now, because railroad building is almost at a standstill and the lines that are being constructed are merely the subsidiaries of large systems, even though they pretend to maintain a separate corporate existence.

The same condition is coming to apply also, to a considerable extent, to electric light and gas plants, since the majority of new lighting enterprises are directly under the control of some adjacent power company or some great holding company with interests scattered all over the country. Yet, owing to the rapid increase of lighting companies, small, independent promotions are still much commoner than independent railroad promotions. In such cases, the promoter is either a local business man who sees an opportunity of improving his town by the installation of a modern lighting system, or an electric or gas engineer who makes a business of promoting small enterprises.

---

[5] For bibliography on railroad promotion see Cleveland and Powell, Railroad Promotion and Capitalization in the United States, 295-342 (1909).

In the former case the local business man will probably seek the advice of an engineer at the first opportunity, and in the latter case the engineer can do nothing without the active co-operation of the local business interests. In rare cases, engineering ability is possessed by the local business capitalist so that a single person embodies all the essentials for the promotion.

The promotion of electric railways varies according to local conditions more than that of any other group of enterprises here under discussion. About the year 1900, electric railroads were promoted all over New England and the Middle states by land speculators. A man owning a tract of waste land near a town or between two cities, organized an electric inter-urban traction company, sold the right of way to the company for bonds or stock, and sold enough bonds to build and equip the road. At first such bonds were bought by unsuspecting investors who were deluded into thinking that if the road cost, including its land, more than the face of the bonds, the latter must be good investments. Very generally other landowners along the road would assist the promoters by taking a small pecuniary interest, knowing that the increase in land values would offset an entire loss on the purchase price of the bonds. Almost invariably the road would fail to meet its interest charges, but in the meantime the promoter and his landowning associates would have sold their land at the increased price consequent on the new line. Such promotions are, fortunately, growing less frequent and the local traction company is viewed with suspicion by outside investors.

Promotion of new electric railway enterprises is now very difficult under any conditions. If a promoter is to succeed, he must subject his enterprise to more rigid tests than the enthusiasm of the inhabitants along the proposed line. The successful promoter in this class of enterprise now is either a local engineer or business man, or else the representative of some large holding company or engineering association.

Forecasting Effect and Cost of Project.—Under whatever conditions the new railroad, lighting, power, or traction enterprise is conceived, the work of the promoter is approximately the same. He must above all else be able to predict the demands of the community for the new service, now and in the near future. He must be able to form an accurate idea of the influence of the new enterprise on the immediate development of the territory it serves. This is an important point.

It very frequently happens, as in parts of New England, that the already existing traffic will not be increased by the presence of a new railroad, or the demand for electric power by a new source of supply. On the other hand, especially in the South and West, the road itself will create most of its traffic, by supplying the means of transportation for ore, coal, or other natural products without which the road would not be constructed. The two problems are different, but the promoter must be able to grasp them fully; he must, especially if he is planning a railroad through a new country, be gifted with an imagination capable of "seeing cities in the desert," but he must be able to reinforce this imagination by concrete figures based on an exhaustive and scientific study of the proposed location of the line. In the case of lighting companies, the promoter must secure the active co-operation of local interests, especially of the prominent business men and the politicians of the community concerned. Ordinarily the towns and municipalities are willing to grant liberal franchises to any promoter who is in a position to give improved lighting service or cheaper power, and his efforts will be directed toward obtaining the grants without burdensome restrictions and for a long period of time. This part of the promoter's work is of great importance, as the public authorities will invariably grant more to the prospective railroad or public utility company before the service is begun, from a sense of expediency, than they will ever grant afterwards, from a sense of justice.

As soon as the promoter has settled in his mind the scope of the new railroad, lighting, or power company and secured the necessary public sanction, whether certificate of exigency, or franchise, the next task for him is to compute the cost of the building of his new undertaking and its probable earnings. The former can be determined with a remarkable degree of accuracy, by means of definite provisional contracts entered into with construction companies, steel mills, and the manufacturers of equipment. If the promoter is personally familiar with the price of materials and construction within the field of the new enterprise, he will be able to estimate for himself the cost of construction.

This is much easier to do in small enterprises than in large. For example, in the case of a small hydro-electric power plant in the South, the promoter-engineer estimated the entire cost of construction and equipment at about $1,200,000; the actual cost was about $1,100,000. Such a case of overestimation of costs is almost unique, but the discrepancy between the "estimates of competent engineers" and the actual cost is apt to be much less, proportionately, in small enterprises. The firm of engineers which built the Mississippi River power plant underestimated the cost by several million dollars. Owing to the variety of possible unforeseen contingencies, the actual cost of hydro-electric plants is apt to vary from the estimated cost by a larger figure proportionately than is the case with railroads and lighting and traction companies.

In case the promoter is not familiar with the established facts of costs and operation, he will enlist the help of an engineering firm of acknowledged standing whose estimates will be relied upon by the men from whom he is to ask capital. And with these estimates completed his own special work will be finished. The promoter will then seek to obtain the co-operation of bankers, construction companies, finance companies, underwriting syndicates, and all the intricate machinery of modern finance. These phases of the promotion will be discussed in subsequent chapters.

Promotion in Established Industry.—The work of the promoter in starting a new manufacturing establishment in an industry already well known, differs considerably from that of initiating an entirely new industry on the one hand and that of organizing a public utility enterprise on the other. The promoter of a new factory is almost invariably a manufacturer previously successful in the same line of work. Frequently, he has promoted other successful factories and has thus secured the confidence of capitalists, as well as of the public. Sometimes he is himself without means, but has risen to the position of superintendent or sales manager of a large establishment and seeks to start a small factory of his own. In such cases, local merchants, bankers, and even the public, will enter the new enterprise with him, because of his proved ability and familiarity with the business. If the town in which the promoter lives is devoted to one industry, he may have gained a reputation for skill of management and even be solicited by local capitalists to "build a mill of his own." In all such cases, the promoter succeeds by his familiarity with the business rather than through any foresight or skill in interpreting economic needs. For that reason his is not a typical promotion, and does not make the promoter's characteristic contribution to our modern economic world.

The history of such mill cities as Fall River and New Bedford abounds with concrete cases of this kind. An immigrant, or son of an immigrant, "makes good" as the superintendent. He establishes a reputation in the community for honesty. Some friend then offers to start the subscription for a mill "for him," and it is frequently named for him. A prominent local banker becomes president—an honorary office—while the man himself becomes the mill treasurer, responsible for the active management.

Promotion of Industrial Combinations—Three Types.—There is one class of promoters which has not been included in any of these groups. These are the promoters of industrial combinations. Between 1897 and 1902, this type was busily at work, gathering into a few organizations a great variety of industrial enterprises. It was the era of "trust promotion." The promoters of the trusts were drawn from three groups of business men.

The first type was the "professional promoter" who made it his business to promote industrial consolidations.[d] This type of promoter arose in response to a peculiar economic environment. All classes of people had deluded themselves into the belief that a group of manufacturing plants, no matter how inefficient or run down in themselves, could be welded into a profitable economic organization if brought under a single ownership and a centralized management. Accordingly, men sprang up who performed the apparently valuable economic service of inducing competitors to set aside their trade jealousies and destructive competitive tactics and to join forces in one great organization. The men who performed this service, the promoters of the combinations, were quite generally unfamiliar with the industries with which they were concerned. They accepted

---

[d] Robinson gives an excellent statement in a few words of the course pursued by the professional promoter, in describing the activities of two professional promoters, W. H. and J. H. Moore. There were many of this type.[6]

For example, Charles R. Flint of New York promoted or was one of the promoters of no less than 24 separate consolidations. Among them were the United States Rubber Company, the Rubber Goods Manufacturing Company, the Sloss-Sheffield Company (steel), the National Starch Company, the American Caramel Company, the American Chicle Company (chewing gum), to mention a few of his connections with enterprises of the most diverse character.

His work, illustrating the activities of the early trust promoter is clearly shown by the promotions of the National Starch Manufacturing Company in 1890, and its successor, the National Starch Company.[7]

Charles R. Flint has recently written what purports to be an autobiography. It is a frank, open—albeit egotistical—account of perhaps the most active and, on the whole, the most successful of the professional trust promoters. Unfortunately, Flint omits figures and details at the places they would be most significant. Unfortunately also, he confines his experiences as promoter of industrial consolidations to two chapters. These two chapters, however, are very suggestive and important as original, first-hand material. His account of the American Chicle Company promotion is very illuminating.[8]

---

[6] Robinson, M. H., "The Distribution of Securities in the Formation of the United States Steel Corporation," 30 Pol. Sci. Quar., 277.

[7] See Dewing, A. S., Corporate Promotions and Reorganizations, Chap. III (1914).

[8] Flint, Charles R., Memories of an Active Life, N. Y. (1923).

the statements of accountants regarding past profits, assuming that future profits would be at least as great, since the wastes of competition would be eliminated. They depended on attorneys for the execution of organization details. At most, their services consisted in securing options from the competing manufacturers,[9] employing accountants and checking their audits, making arrangements with bankers who would supply the money necessary to finance the new company and assuming the general superintendence of the organization through attorneys whom they employed. Sometimes the professional promoters agreed, in addition, to attend to the subsequent marketing of the securities of the new company, but this service was rendered very rarely. It was hardly ever expected that the promoter of this type would be in any way connected with the administration of the new business once it was started. He was paid for his services in money or else in merchantable securities of the new company. Sometimes he would go to the length of insisting that his securities should be sold first, there being a specific contract that no securities should be offered for general purchase and sale until after he had been able to realize or "run" on his. Everyone connected with the promotion realized that the services of the promoter were merely those of organizer and in no wise involved a permanent interest in the corporation he had brought into existence.

The second class of trust promoters comprised the manufacturers themselves. Many manufacturers, thoroughly acquainted with their industry from a life-long experience, became imbued with the belief in large-scale production and, feeling the vigor of competition, easily deceived themselves into the conviction that, should the most important of the competitors unite, the wastes of competition would be eliminated and large profits result. Accordingly, some one of them would solicit options on the plants of his competitors. He might even go to the length of assuming the full responsibility for organizing the new company, but more generally he left that task to the bankers whom he secured to finance the company. Consolidations promoted from within by a manufacturer would ordinarily result in greater internal strength than those promoted by an outside professional promoter, since they could command more loyalty from the old manufacturers. In either case, the promoter's work would stop as soon as the combination was planned and the options secured on a sufficient number of plants. The rest of the work of promotion would fall on the bankers and lawyers. Many of the large industrial consolidations, as, for example, the United States Leather Company (now the Central Leather Company) were conceived and promoted by the manufacturers themselves.[10]

---

[9] Mead gives a clear account of "option getting." Mead, E. S., Corporation Finance, Chaps. I and II (1915).

A third type of promoter of industrial combinations was the banker. A large proportion, perhaps a majority, of the industrial combinations promoted during the period when such promotions were most frequent, were organized directly through the efforts of bankers. Quite frequently the banker employed some agent to solicit proxies from the manufacturers, but the actual responsibility of the promotion was his.[11]

Comparative Effectiveness.—Generally speaking, it may be said that industrial combinations which were conceived and promoted directly by banking interests have been stronger financially than those promoted by the professional promoter or a manufacturer, but weaker from the point of view of the subsequent conduct of the business. Furthermore, it has been frequently contended that the strongest and, on the whole, most successful promotions are those managed by the professional promoter. Not only has he the advantage of a new and unruffled point of view—free from either the jealousies of years of competition or the suspicion with which bankers are always regarded by manufacturers—but he has had experience in conciliating all kinds of temperaments. He has learned a trade. Charles R. Flint thus clearly states the issue. "The right way (to form the electrical consolidation) would have been to give the general idea of consolidation to a disinterested intermediary, who as a neutral would have commanded the confidence of the manufacturers, and who would have secured all of the facts necessary to formulate a plan. As a disinterested neutral he would have been able to establish intimate relations with each manufacturer and secure his acceptance of the plan. In reviewing the consolidation of industrials a few months before his death, E. C. Converse fully agreed with me that an experienced disinterested neutral is generally necessary to bring about a consolidation, and that the very few exceptions only proved the rule."[12]

---

[10] Dewing, A. S., Corporate Promotions and Reorganizations, Chap. II (1914); reprinted Ripley, W. Z., Trusts, Pools and Corporations, Chap. XI (1916).

[11] For description of the means employed to obtain proxies see Flint, Charles R., *op cit.*

A well-known example of this type of promotion is that of the United States Steel Corporation, the entire administration of which was under the direct control of bankers. There are numerous accounts of the United States Steel promotion. Probably the most accessible is that of the United States Bureau of Corporations' Report on the Steel Industry, July, 1911, although the report is somewhat biased against the corporation investigated. Parts of it are reprinted by Ripley, W. Z., Trusts, Pools and Corporations, Chaps. V, VI (1916). A wealth of documentary matter covering the promotion is given in the printed testimony of the government's suit against the Steel Corporation, but this is not easily accessible. Much of the evidence is finally summarized in the noteworthy decision of the Federal Court (*223* Fed. 55), parts reprinted in Ripley, W. Z., Trusts, Pools and Corporations, Chap. V (1916). Extensive evidence concerning the promotion was brought out in the testimony before the Stanley Committee. Pertinent parts reprinted in Stevens, W. S., Industrial Combinations and Trusts, Chap. VI (1913). A brief but comprehensive account of the distribution of securities at the time of promotion: Robinson, M. H., 30. Pol. Sci. Quar. *277*.

Further details covering the activities of promoters in industrial enterprises are in Ripley, W. Z., Trusts, Pools and Corporations (1916); Dewing, A. S., Corporate Promotions and Reorganizations (1914); Mead, E. S., Corporation Finance, Chap. III (1915); Conyngton, Hugh R., Corporation Procedure, Chaps. XIX-XXVII (1922); also Stevens, W. S., Industrial Combinations and Trusts (1913).

Important

This presumption that the outside or professional promoter is more successful in bringing conflicting parties together than either the manufacturer or the banker is perhaps true but it is very difficult to prove empirically. On the other hand, no evidence has been obtained to indicate that the promotions, as a class, consummated by the professional promoter are any more likely to be permanently successful than those brought about by the banker or manufacturer. To ascertain this fact a study was undertaken of a group of 99 industrial promotions, consummated from 1895 to 1903, all of which could be definitely attributed to either of these three classes.[13] The history of each was traced down to the present time. Of these 99 corporations 20 were promoted by bankers, 48 by men within the industry—manufacturers or merchants—and 31 by professional promoters. Of the 20 promoted by bankers 80 per cent were, in 1925, still in existence and 20 per cent had failed or been eliminated. Of the 48 promoted by the manufacturers themselves 65 per cent were, in 1925, still in business and 35 per cent had failed. Of the 31 promoted by professional promoters 71 per cent were still in business and 29 had failed.[e]

---

[12] Flint, C. R., Memories of an Active Life, 294, 295 (1923).

[13] Edwards, G. J., Comparative Success of Three Types of Industrial Combination Harvard Graduate School of Business Administration (1926). In all, partial or com-

Utility of the Promoter.—This description of the work of the promoter has restricted itself entirely to the work which he performs alone. It embraces merely the preliminary stages of the promotion. Once the promoter has conceived of the enterprise and has the rough outlines well in hand, he usually seeks the aid of other interests, as has been said, so that the new company is created through the united efforts of many persons. And beyond the preliminary stages the promoter merely co-operates, unless—as in rare cases—he represents in himself engineer, banker, underwriter, and investing public. This co-operation brings into play duties and responsibilities which the promoter shares with others and which may best be discussed apart from his special work. But it should be remembered that the origin and inspiration of the enterprise is to be traced back to him.

To accomplish his ends, the promoter, in whatever channel of business activity he works, must be possessed of certain psychological and moral characteristics, if he is to attain con-

---

[e] The length of life of the failed corporations throws no more light on the problem. The average length of life of the failed consolidations was as follows:[14]

Promoted by Manufacturers	8.65 years
Promoted by Bankers	12.33 "
Promoted by Professionals	10.75 "

---

plete data of 273 industrial combinations were collected; but it was possible to definitely and unequivocally classify only 99 of these as being promoted by banker, manufacturer, or professional promoter. Of the rest the data available were either too meager or else the promotion was handled by two or more individuals who fell into more than the single class.

[14] *Ibid.*

spicuous success. Success in the field of promotion, more perhaps than in any other field of industrial enterprise, requires the most marked ability and the highest standards of business integrity. Unfortunately, there has appeared in fiction, in newspapers, and even in the public consciousness, the impression—often verging on a conviction—that the promoter is an impecunious, silvery-tongued vendor of worthless shares in mining and oil projects. There are promoters of this class, it must be admitted, but their notoriety far exceeds their numbers, or their importance. The promoter who actually takes a significant part in modern industrial progress is a man of the strictest honesty, whose judgment can be relied upon by his associates, one ordinarily inclined to understate rather than overstate whatever prospective estimates he may be called upon to make. Past experience has made him as cautious in his assurances as he is aggressive in his hopes. Temperamentally he is an optimist, open-minded to new suggestions, but skeptical of statements not based on concrete experience; critical, in the sense of being analytical—suspicious of human nature—but uncritical in the sense of being free from the fetters of convention and tradition.

Such a man, moreover, must possess imagination. It is the constructive imagination that is an essential part of business genius. The great promoter has an intuitive appreciation of social needs as they affect business. He is not interested in economic law; yet he can forecast movements in the supply and demand of a commodity, and project into the future the effects that follow in the wake of a new business enterprise. It is this prophetic imagination of the promoter that blazes the paths of industrial progress.

It is to be said, however, that there is another type of promoter who is frequently successful in small undertakings through sheer personal assertiveness, or what is in slang called "brass" or "nerve." He has no moral or pecuniary responsibility, but is gifted with a knack of discovering small meritorious undertakings. Quite generally, especially if he is working in a field with which he is familiar, the prospective enterprises are fundamentally sound, but presentation of them is apt to be misleading. He usually represents himself to the prospective capitalist as having invested in the venture a considerable sum of money, which must be returned to him directly as "expenses" or indirectly as stock. He claims, ordinarily, a large part of the prospective profits, for the value of his services. The wise banker will "buy off" such a promoter at the beginning, or else go over his head to the real originators of the enterprise.

The Promoter's Profits.—Much has been written in condemnation and much in defense of the large profits sometimes taken by promoters.[f] That they are large in the case of un-

---

[f] The matter has come up for discussion very often in connection with public utility commission decisions regarding the issue of securities to promoters in compensation for their services. Massachusetts, Maryland, and Ohio commissions have refused such allowances; those of New York, Wisconsin, Georgia, and Indiana have gone on record as admitting the right of the promoter to a fair return for his efforts. An extract quoted by Heilman from a decision of the California commission puts the matter strongly, asserting that: "Payments for promoters' services and organization expenses are as necessary to the success of a public utility, and are as properly subjects of capitalization as the cost of the component parts of the utility's plant. . . . A public authority, in estimating the value of such services, should be liberal so that men of ability may be attracted to the development of new utility enterprises where needed for the development of the state. . . . It may be well that in addition to a reasonable compensation for the time devoted to the work, the promoter should be allowed an additional remuneration to compensate him for his risk of failure."[15]

A survey was undertaken of the decision of a great many, if not all, the state commissions to ascertain the attitude toward promoters' profits.[16] The following table briefly summarizes the results. The decision of state

State	Year Latest Decision	Promoter's Stocks	Allowance
California	1924	Allowed	⅛% to 3¼%
District of Columbia	1920	Allowed	....
Illinois	1921	Allowed	2%
Idaho	1924	Allowed	1.8% to 10%
Indiana	1917	Disallowed	....
Maine	1918	Disallowed	....
Maryland	1918	Allowed	....
Missouri	1923	Allowed	5% to 6½%
Montana	1922	Allowed	2%
Nevada	1921	Disallowed	....
New Hampshire	1921	Allowed	....
New York	1921	Allowed	2%
Pennsylvania	1925	Allowed	1% to 2%
Utah	1920	Allowed	....
West Virginia	1925	Allowed	2½%
Virginia	1925	Allowed	2½%
Wisconsin	1921	Allowed	Under 3%

---

[15] Opin. and Orders Rd. Com., Cal., 116.

[16] Deal, L. L., Attitude of Public Utility Commissions Towards the Legality of Promoter's Stocks, Harvard Graduate School of Business Administration (1926).

usually successful promotions is explained by two facts, frequently forgotten: first, the risk is great; second, the profits, large or small, are almost invariably in the common stock of the enterprise. Many promotions fail; some fail through no fault of the promoter. At all events, it is a very precarious business, in which the rôle of prince and pauper succeed each other in quick succession. For if the promoter makes a "killing at one time," it will be, probably, only a short time before he has lost his entire stake in a succeeding promotion which appeared, in the light of his effervescent enthusiasm, "the best yet" at its outset. And even those promotions which are successful yield only common stock, and he must not only wait until the enterprise has proved itself, but also until a market has been found for the stock. One vigorous, but somewhat erratic, promoter once summed up the situation in the writer's hearing, when he remarked in a crestfallen fashion on being handed some elaborately engraved common stock certificates, "This is all right, but it won't pay the grocer."

The exact proportion of common shares that shall go to the promoter is always the subject of considerable negotiation. Invariably the banker takes the lion's share under the apprehension that the risks of furnishing capital are greater than those of furnishing imagination and enthusiasm. Furthermore, and this is certainly true, the evil consequences to a

---

commissions not here listed were either non-committal on the subject or else different decisions were obviously contradictory.

A promoter of a new national bank cannot receive any compensation; and subscribers to the stock of a new national bank must affirm that they have neither paid nor promised to pay any commissions for securing their subscriptions. So careful is the Treasury Department in this particular that the bank in which the funds of a new national bank are at first deposited must certify that no loan has been made to any of the subscribers or prospective officers.

Whatever may be said in justification or condemnation of compensation to a promoter of a public utility or a bank it is clear that no business man will undertake the risks incident to the organization and early financial sponsorship of an industrial enterprise without at least a promise of a liberal return in case of the successful outcome of the venture. To deny this by law is to force the business man to adopt secret methods of securing profit which because they are circuitous and indirect are far more socially harmful than the open acknowledgment by law that a promoter is entitled to pay for his services.

banker's reputation likely to follow from the failure of an enterprise are more lasting and more serious than similar consequences in the case of the promoter. The promoter will be excused in the light of his volatile imagination, but the banker will not be excused on any such ground. His judgment was wrong, and judgment is the banker's chief asset. Under these circumstances the banker will require a majority of the common shares. Of the rest, some will go to outside investors, some to attorneys, and some to engineers and general utility men. Custom seems to have decreed that about 10 per cent of the common stock is a fair compensation to the promoter, but this may be increased very much if the promoter assumes larger functions than those of merely conceiving the enterprise. Where he combines the functions of inventor, promoter, and banker he may even take 51 per cent of the entire capitalization as his compensation.

A consideration, however, of the profits a promoter may realize from the promotion of an industrial enterprise does not apply to the compensation the promoter, acting as broker or agent, in the sale of a public utility may ask and receive. During the period after 1920, particularly after 1923, there was a veritable scramble of public utility operators to acquire electric light and power properties. The competition among the larger interests was very keen and utility properties were passed about, at constantly increasing prices, much like pieces of real estate during a land boom. Incidental to this feverish activity an army of brokers and confidence "go-between" men sprang into existence whose main business was to "dig up" electric light and power situations, embellish them by exaggerated accounts of greatly increased earnings soon to be realized, and offer them to public utility operators. They acquired a remarkable skill in appraising the probable preferences of each operator and his particular likes and dislikes in such matters as size, geographical locality and degree of intensive development. Sometimes, in fact quite frequently, these brokers would have a definite understanding with different operators covering a uniform commission on all properties offered by the broker and finally acquired by the operator. All the negotiations would be between the seller and the operator—or their regularly constituted agents—the broker acting merely as intermediary. For this kind of service the broker promoter would expect and has usually received a commission amounting to approximately 2 per cent of the total purchase price of the property.

Legal Status of the Promoter.—The exact legal status of the promoter has appeared a mischievous puzzle to the jurists.[g] Much has been written upon the subject, and, judging from numerous decisions, the legal responsibilities and obligations of the promoter depend on the question whether he is acting as an independent and contractually free person or as agent or trustee for other interests—the planned but as yet unincorporated corporation, the stock subscribers, incorporators, or future stock-

---

[g] Isaacs, in arguing for statutory definition of the promoter's liabilities and responsibilities, thus summarizes the anomalous situation. "It seems, then, that every attempt to fit the promoter into a common-law scheme has not only failed but has led to embarrassment and abuses. He tries to act as agent. The courts discover that he cannot. Call him an outsider, and you have not only a bald fiction but you make him free to deal at arms' length with the corporation and make secret profits. Call a halt by declaring him a fiduciary—a fiduciary with the burdens but none of the advantages of an ordinary fiduciary. You must modify the statement and retract it at every turn, and finally you find it leading to a recovery of secret profits that were assented to by every one in interest, and that now can be recovered to enrich those who were never damaged. Reject these attempts to name him and work with a nexus of special agreements and the ordinary contractual doctrines and particularly novation. Among the problems opened up by this course are those of the promoter's liability in various unforeseen circumstances, of its continuation, and in addition the question whether the corporation can be a bona fide purchaser for value from him, and the further difficulty of having to discover assents and novations on very flimsy grounds. Finally you have the difficulty of the corporation's using its immunity as a sword instead of a shield, and the efforts of the law to reach it in spite of its refusal to assent to fair arrangements made by the promoters. Does it not seem clear that in this statute-made difficulty to determine the relation between the promoter and the corporation a statutory answer may be necessary?"[17]

---

[17] The subject is ably discussed by Isaacs, 38 Harv. L. R. 887 (May, 1925).

See also Richards, H. S., "The Liability of Corporations on Contracts made by Promoters," 19 Harv. L. R. 97; also Weston, R. D., "Promoter's Liability," 30 Harv. L. R. 39; also 33 Harv. L. R. 110 and 34 Harv. L. R. 291.

No list of citations, no matter how meager, could omit at least the mention of the "Old Dominion Copper Cases." Old Dom. Copper v. Bigelow, 203 Mass. 159 (1909); and Old Dom. Copper v. Lewisohn, 210 U. S. 206 (1908).

There are numerous recent cases: Ball v. Breed, etc., 294 Fed. 227; 264 U. S. 584 (1924). Metcalfe v. Mental Science, etc., 127 Wash. 50 (1923). Nickel, etc. v. Broom, 123 S. E. 594 (1924).

holders. If it is clear by his acts or their implications that he occupies a fiduciary relation toward the future corporation then his responsibility is clear. He may be paid profits, but he cannot take secret and exorbitant profits at the expense of the future corporations for whose well-being he stands as trustee.[18]

---

[18] For elaborate discussions see Machen, A. W., A Treatise on the Modern Law of Corporations, or Cook, W. W., A Treatise on the Law of Corporations Having Capital Stock; and the special works of Alger, A. M., A Treatise on the Law in Relation to Promoters and the Promotion of Corporations (1897), also Masslich, C. B., "Financing a New Corporate Enterprise," 5 Ill. Law. Rev., 70 (1910).

CHAPTER II

THE VALUATION OF A GOING BUSINESS FOR THE PURPOSE OF PROMOTION

Perhaps the first question to present itself in connection with the promotion of a new enterprise through the acquisition of an established business is that of valuation. Not only is this question first to be considered at the time of an original promotion, but it frequently happens that an old-established company acquires a competitor and the subsequent consolidation of the two represents a promotion in a very real sense. Under whatever circumstances occurring, if a previously existing business enters into the calculations of the promoters, its proper and fair valuation looms large as perhaps the first question to be faced.

Occasion for Valuation.—More than this, the valuation of a business sometimes arises as an imperative necessity. Under the laws of Massachusetts, and of some other states, the holders of more than two-thirds of the stock of a corporation may sell the entire assets to another corporation, taking in payment either securities or money. But the minority stockholders, instead of accepting their proportion of the proceeds of the sale may require that the value of the minority stock be appraised. In that case a board of arbitration is established in which the buying corporation selects one member, the dissatisfied stockholders a second member, and these two choose a third. The finding of this tribunal is conclusive upon the two dissenting groups. Since the law has been in force a number of cases of minority stock appraisal have been arbitrated; but unfortunately the underlying or controlling principles which have governed the arbitrators in each case are by no means clearly defined or conclusive.

These occasions for the appraisal of the value of a going enterprise for purposes of outright purchase by no means exhaust the cases of valuation. A long succession of judicial decisions in public utility rate cases, in the municipal acquisition of water works, and in cases concerning the issue of securities of existent utilities has thrown back the whole subject of a socially and economically fair and just railroad, water or electric rate upon the valuation of the utility.[a]

From whatever angle, therefore, the question of the appraisal of an established business enterprise is approached, it appears as one of the most important questions in the broad area where political economy and the science of business meet. The fundamental principles at the foundation of the subject are therefore of great moment.

Basis of Economic Value—Substitution Cost.—The basis of all economic value is human usefulness. But when a human being finds that the same usefulness can be met through more than one avenue, he will necessarily choose to obtain that usefulness which entails the least personal sacrifice. Consequently, the value of any single economic thing or service is limited by the cost, in the man's judgment, of the sacrifice entailed in obtaining another thing or service that will equally meet his need. No matter how great may be the usefulness to an individual of a single piece of food, its economic value is limited by the sacrifice or cost he must undergo to acquire another piece of food equally useful. This conception of substitution value is the distinguishing difference between all economic values and all other human values—sexual, parental, social and religious.

---

[a] It is not the purpose of this chapter—nor of any other chapter in this work—to discuss theories of valuation of public utilities by courts or commissions. At their best, such valuations are based on arbitrary units comprising the physical structures of the business; at their worst, they bear nothing but a remote historical resemblance to the actual utility business being conducted at the present time by thinking, feeling human beings. There is, however, extended literature on the subject, as extended as it is confusing. One of the best brief summaries is to be found in Badger, R. E., Valuation of Industrial Securities, Chaps. II and III (1925). The footnotes to the chapters give extended citations to court and commission cases. More extensive treatments of the subject are: Whitten, R. H., Valuation of Public Service Corporations (1914); Hartman, H. H., Fair Value (1922); Bauer, John, Effective Regulation of Public Utilities (1925); and Saliers, Earl A., Depreciation (1922). Many of the court and commission "opinions" embody statements of what might be called the principles of valuation. Unfortunately these principles suggest nothing approaching uniformity.

The presumption of a substitution value involves the postulate of a common denominator of values—one economic value cannot be substituted for another unless the two can be put on a single plane. There must be a possible basis of exchange. In other words, the economic value of a thing or service at any one time is the cost or sacrifice then and there of obtaining a substitute—the cost to be expressed in terms of some common or arbitrary unit of cost.

Some such reasoning as this lies at the basis of most attempts to justify the exchange value of economic goods, be they a piece of bread, a corporation, or a share of the latter's stock. But the concrete application of this principle is usually made difficult by the feeling that original cost, rather than present exchangeability, determines value—that because a pound of cotton or a share of stock cost, originally, a certain figure the value thereafter is somehow affected by this original cost. The serious consequence of any such historical cost will become apparent presently from a few concrete examples of valuation.

Consumers' Goods and Producers' Goods.—One more distinction already mentioned should be clearly before us in seeking to determine the value of a business enterprise—the distinction between consumers' and producers' goods. It should be remembered that the property of any business includes commodities which can be directly utilized by the ultimate consumer. Their value is direct—the immediate utility to the user. In such a category belongs so much of the inventories of completely manufactured goods as can be sold for immediate consumption. In contrast are other pieces of property which have a value only so long as they can be made to produce other commodities—probably consumers' goods. Their usefulness (and exchange value in the end) depends not on a consumer's use of them but upon a consumer's use of the commodities or services they can be made to produce. A shoe machine cannot be worn on the foot; its usefulness consists entirely in its capacity and relative efficiency in producing things that can be worn on the feet. Most of the permanent property of a business enterprise is likely to consist of producers' goods, for the simple reason that the very nature of the enterprise is to produce things or services for consumption, and these latter pass out of its possession as rapidly as they are produced. The machinery, the buildings, the real estate of a corporation are producers' goods and these constitute—except in retail businesses and very few manufacturing businesses like tanneries—by far the greater proportion of the property of the corporation. The consumers' goods, representing manufactured products, represent, ordinarily, only a small part of the property of the corporation.

One very important contrast, however, should be noted in this analysis. The value of consumers' goods is direct. It is based on the usefulness of the thing itself to the consumer. The value of producers' goods is indirect. It is based on the usefulness of the thing it produces to the consumer. One has a usefulness in itself to the consumer, the other has none.

This distinction between the direct usefulness of consumers' goods and the indirect usefulness of producers' goods is of the utmost importance in appraising the value of the two kinds of property owned by a business enterprise. Some exchange value, however small, can always be attributed to consumers' goods, because such goods, being in themselves capable of satisfying a human want, can always be exchanged on some terms with a man who has the want that they can satisfy. Shoes can always be sold at some price, because a man who needs shoes to wear will always make at least some sacrifice to get them. But producers' goods may have no exchange value, for the simple reason that they fail to produce enough consumers' goods to pay the costs of operation. A shoe machine may have absolutely no value as a shoe machine for the reason that it costs more to produce shoes upon it than the equivalent of the exchange value of the shoes produced.

Three Factors—Quick Assets, Fixed Assets, Management.—With these somewhat extended preliminary comments we are in a position to proceed with the valuation of a business enterprise. Obviously the basis of its value is probably—although not necessarily—the purpose for which it was intended, namely, earning a profit. The enterprise as a whole constitutes a working aggregate of producers' goods, originally acquired for the purpose of earning a profit and dedicated to that specific purpose, as a shoe machine is dedicated to make shoes and a locomotive to haul freight. Unfortunately, however, for the simplicity of our analysis a shoe machine or an aggregate of shoe machines, a locomotive, or a railroad, have no earning capacity alone, unless they are supplemented by two other things. They require a certain amount of working capital and they require the intangible something we call management. Every business is divisible, for the purposes of this analysis, into three kinds of value or rather three factors of value. There are quick assets, the working capital or consumers' goods readily and quickly evaluated in terms of exchange value—they can be converted into cash because they have an immediate usefulness to the ultimate consumer. There are the fixed assets or producers' goods which can, ordinarily, be neither quickly nor readily sold or evaluated in terms of current exchange value. Being producers' goods, their value is insuperably bound up with the exchange value of the consumers' goods they produce. In other words, their value lies in their earning power. And a determination of their earning power requires the evaluation of the third, the human factor, the skill of management, which controls and operates these, yes, which humanizes them. The same shoe machine owned by one factory manager yields nothing; owned by another it yields liberal earnings.

Obviously, as has been intimated already, these three factors must be appraised differently in reaching our final estimate of the value of a business. The first, the quick assets or consumers' goods, presents little difficulty. These goods are worth what they can be sold for. If the finished goods are highly specialized or are sold only through great efforts—novelties and luxury goods—the exchange value of this particular part of the quick assets is small; if the finished goods are of standard form and quality—sheetings, 22d, or 90 pound steel rails—the exchange value is relatively large and easily determined. Accounts and notes receivable can be appraised with little difficulty on the basis of the corporation's credit experience. But whatever the procedure followed the appraisal of the quick assets would present little difficulty because their exchange value, as cash items and consumers' goods, could be measured.

The valuation of the fixed assets and the management are inseparably bound together. The fixed assets of a business can earn nothing—have no value as producers' goods—without management; and skill of management has no value, it is a meaningless symbol, without fixed assets to manage. The problem narrows itself to a method by which the two, fixed assets and skill of management, can be evaluated together. The solution of this enigma is earning power.

Working together, management and the fixed assets of the business have in the years past produced good or bad results as evidenced by the earning power of the business. The business is not merely the sum of its parts—bricks, spindles and looms; it is the combination of these vitalized by human intellect and inspired by human ambition. As the immortal Doctor said, not "a parcel of boilers and vats but the potentiality of growing rich, beyond the dreams of avarice."[1] Consequently the only way to determine the present value of the combination is by establishing some kind of a ratio between the exchange value of the combination—fixed assets and management—and the objective expression of this combination in the form of past earnings. Or, in other words, the capitalization of the net earnings.[b]

---

[1] Boswell, Life of Dr. Johnson, Vol. II, 380 (1791).

---

[b] This chapter takes the position squarely and openly that the ultimate and final controlling criterion of the value of a going business is earning power. In estimating value of any kind there must be some final test. The issue is only befogged by setting up a multiple standard, or using one basis of value for one kind of business and a different basis for another kind. Nor is the difficulty of reaching a basis of value helped very much by the contributions of appraisal engineers.

There have been a number of studies by engineers and accountants on the general subject of the valuation of a going business. The assumptions of both of these groups are unsuited to the valuation of a going business for the purpose of purchase by a business man. The engineer's valuation is always based on the appraisal of the multifarious physical parts that together constitute the fixed assets of the business. He usually adds a liberal allowance for "engineering"—the same percentage, ordinarily, for good or for bad engineering—but nothing for the intangible "organization" supplied by the business man and the judgment and foresight exercised in the past in developing sources of supply or markets of distribution. The accountant, on the other hand, is concerned primarily with costs. Value to him is the cost of acquiring the plant—whether wisely constructed in times of low prices or poorly constructed in times of high prices—the cost of developing the business, and the costs of maintaining it.

The business man, frankly, is interested neither in the engineer's appraisal of physical property, according to some arbitrary rule of unit values, nor in the accountant's report of the past expenditures. He is interested primarily in the past earning capacity of the business so far as this can throw light on the future earnings in his hands. He is buying earning capacity and not physical assets.

There were a great many sales during 1924, 1925 and 1926 of public utility situations—east, west, north and south. Electric light and power companies, water companies and gas companies changed hands from one operator or holding company to another. It is doubtful if a single one of these operating companies changed hands on any other basis than earning power, although public utility enterprises like these would be valued by business men, if any businesses were, on the basis of physical value. True, the public utility operator takes cognizance of physical value, because he knows that state commissions have direction over his security issues and his rates; but these physical valuations are, to his way of thinking, to be stressed if they aid him in increasing or maintaining rates or to be somehow explained if they are below his valuation based on earnings. In the latter case the public utility operator resorts to various indirect charges so that the apparent earnings, after adjustments, are not out of line with earnings warranted by a utility commission's valuation of the physical property.

The theory stressed in this chapter, that the valuation of a going business is based on its earning power, is much more fully developed by Badger, R. E., in The Valuation of Industrial Securities (1925). This book, the most searching study of valuation, as a practical business problem, thus far prepared, may be thoroughly recommended to anyone interested in a more exhaustive study of valuation both in theory and practice. Badger's study of the ratio between earning power and market value is referred to at length toward the end of this chapter.

Capitalization of Net Earnings.—Capitalization of the net earnings has been often used as a method for appraising the value of a business because of its simplicity. The author believes that this method is closest to sound economic theory. But the difficulty, in practice, is the determination of a proper ratio upon which the earnings should be capitalized. Here, as elsewhere, we are driven back to exchange value. What will shrewd business men require as a ratio between the earnings and the cost of the business before they will risk their capital in it? This is a question of experience.

In the long run both the interest on the capital invested and the compensation for skill of management tend to become equal among different kinds of enterprises. That is, the mere rate of return on capital, without considering the risk incident to carrying it on, tends to be the same for all businesses. And furthermore, in the long run, the larger return obtained in certain risky businesses is counterbalanced by the greater frequency of losses, while the smaller return to stable businesses does not have to bear the burden of frequent losses. But obviously the administration of the successful risky business requires greater skill, just as the compensation for it is greater than with the successful stable business. A building, representing fixed capital, may be used by a risky business or by a stable business. It is the same building in both cases. But to make a successful business requires far greater skill of management if the building is used to manufacture fancy dancing slippers than if it is used as a storage warehouse. In the combination of fixed capital and management the latter element is of much greater relative importance in the one case than in the other. In brief, the contribution of skill of management to success is greater in a risky than in a stable business.

This difference as regards the relative importance of management affects directly the ratio at which net earnings in different kinds of business should be capitalized. For if management is of relatively greater importance, to insure success, in certain businesses than in others, a buyer will pay comparatively little for the combination of fixed assets and past management, represented by the capitalized past earnings, in those businesses in which the importance of good management is such a prerequisite to success that the future earnings cannot be predicted from the past earnings. Or, stating the same idea differently, the greater the risk of the business, the smaller the ratio between past earnings and present value; and, conversely, the greater the stability of the business—and the less degree to which management is a prerequisite to success—the greater the ratio between past earnings and present value. The relative importance of management gives us a key to the relative value of a business in terms of the record of past earnings.

Ratios for Capitalization of Net Earnings in Various Businesses.—In the light of the relative importance of management it is possible to arrange businesses in the order of the ratios by which one may capitalize past earnings. Businesses that are very stable are at one end of the series, those that are very risky at the other end of the series. A gravity system water works is, in the writer's opinion, the easiest kind of business to administer. Even the aldermen of a city can manage the water works with not too destructive inefficiency. At the other end are businesses like shoe novelties or drama production which are so uncertain and risky that only a few people of rare ability are likely to succeed in them. The quantity of fixed assets at the command of the managers of this latter kind are of relatively little importance in forecasting success, and if men of marked ability withdraw, this skeleton of fixed assets remaining is of little value to other men. Between these two extremes lie the great majority of businesses. Toward one end of the series would be grouped the large variety of local utilities protected by franchise from competition and from confiscatory rates by the Fourteenth Amendment. Toward the other end would be found the extra hazardous businesses involving keen foresight, personal attention to details and marked power to co-ordinate all the parts of an enterprise.

The ratios or percentages at which the extremes of this series should be capitalized in order to translate earnings into value must depend on a variety of conditions. Businesses requiring only a small amount of capital will sell for a higher price, relatively, than businesses requiring a large amount as there are a greater number of possible buyers; on the other hand businesses that require large amounts of capital will appeal more strongly to investment bankers and will therefore have a readier access to investment funds. Businesses which are pleasant and give the owner a social standing will sell for more than businesses which are disagreeable to conduct or which carry social discredit. Seasonal and fluctuating businesses have certain apparent disadvantages, so also have businesses which require a highly specialized background of training and information available only to a few.

The personal preferences and tastes of the investor, moreover, assist in determining the industry on which his favor rests. This favor is fickle. Like fashion in all things the taste of bankers and investors is subject to abrupt changes, directing the capital stream toward one type of industry at one time, toward another at another time. In 1917 public utilities of all descriptions could not be financed by bankers nor would their securities—senior bonds or highly speculative holding company common stock—be bought by investors no matter what the strength of security or possibility of future enhancement. In 1925 bankers and investors alike bought highly speculative holding company common stock at wildly inflated prices. Naturally public utilities, as business enterprises, commanded a much higher price, relatively to their apparent earnings, in 1925 than in 1917. Similarly, among industrials baking company securities and chain store common stocks were in much demand in 1924, and bakery businesses and chains of retail stores commanded a higher price relatively than ever before. Instances could be multiplied, but they would all merely indicate that the exchange value of a business, in the estimation of the promoter, varies according to the temper of the banking fraternity and the ease with which securities are absorbed by the investing public.

Surprising Agreement of Estimates of Value.—These comments must indicate how much any attempt to fix definite ratios between earning power and exchange value are matters of guess-work. Yet promoters are compelled continuously to make such guesses and the accuracy and keenness of their guesses does much to predetermine the success or the failure of their promotions. Some kind of guess is necessary. Promoters are forming estimates of value all the time. The surprising thing is that, so frequently, the independent estimates of value made by different promoters are very close.

A single case will illustrate this, and at the same time indicate the manner in which the principles of valuation, heretofore suggested, are capable of practical application. The case in point is the valuation, for the purposes of purchase and promotion of a new company, of a natural gas property in Pennsylvania. It would carry us too far afield to discuss, in detail, all the facts, estimates, and possibilities that influenced the possible buyers of this property at the time they formed their estimates of possible value but a few of the major considerations should be noted.[2]

A certain large corporation owned the entire common stock (no bonds or preferred shares) of the Patten Gas Company operating in northern Pennsylvania. It also owned a three-quarter interest in the common stock (also no bonds or preferred shares) of the Daggettown Gas Company. Both companies owned natural gas wells, purchased natural gas at wholesale and sold natural gas, chiefly at wholesale. The large corporation was engaged primarily in the oil business and at the time in question, October, 1925, wished to obtain money with which to pay off certain of its high interest-bearing bonds. The directors of the large corporation, therefore, let it be known that they would be glad to consider an offer for their gas properties. Five separate valuations, for sale purposes, were made. Two were made by engineering firms who had been instructed by their clients to report on the actual sale value, and only incidentally on the "appraisal" value. One of the firms was not asked to report on the "appraisal" value. Another estimate was prepared by an investment banking house which proposed to finance the property by forming, with practical utility operators, a new holding company; and still another estimate was made by these utility operators themselves. A fifth estimate was made by a partnership of engineers who operated, with marked success, extensive gas, electric and street railways in western Pennsylvania. This last possible buyer would put the Patten Gas Company and the three-fourths interest in the Daggettown Company in a holding company already formed. We will consider each of these five estimates of value.

---

[2] The proper names are slightly changed in citing this illustration; all else is unaltered except that the statement of certain facts has been simplified in the interest of brevity.

Jones & Company, engineers, after a very careful study estimated the cost new, less depreciation, for rate making purposes at $6,200,000 and original cost, less depreciation at about $4,000,000.[3] The earnings were as follows (approximately):

	Patten	Daggettown Co. (entire)
Gross	$580,000	$112,000
Operating expenses, including taxes	234,000	34,000
Net (before any depreciation but after maintenance and taxes)	$346,000	$ 78,000

The net earnings of the Patten Gas Company and a three-fourths interest in the Daggettown Company, before allowing for depreciation, but after taxes and the expenses of maintaining the pipe lines, wells and stations amounted to $406,000. This was the earning figure all the parties had in view, although a recent increase in rates indicated that in October, 1925, when the matters reached a head, the annual earnings were running at the rate of approximately $420,000, and would probably be a little higher by the end of the year. Both companies produced, from their own wells, from two-thirds to three-quarters of the gas sold, buying the rest at very favorable rates from small producers and pipe lines. The Patten Company owned about 47,000 acres of gas land, much of it untapped. Furthermore, for the Patten Company, Jones & Company estimated a life of the gas field, at present rates of consumption, of from fifteen to twenty years. To maintain this at least $60,000 would have to be spent in drilling new wells. This expenditure was in addition to the maintenance charges. Smith & Company, the other engineers, estimated a minimum of thirteen years and a maximum of "about twenty years." They agreed with the other engineers that "at least $60,000 should be spent annually to maintain production." An examination of both reports, however, would indicate to the non-technical man how much the life of gas wells was a matter of guess-work. Accountants reported that the Patten Company had $131,000 net quick assets—mostly cash and negotiable notes. The Daggettown Company had $16,000 net quick assets.

---

[3] These figures, and others unless specifically noted, refer to 100 per cent Patten Gas Company and 75 per cent Daggettown Gas Company.

As already suggested different men formed independent estimates of the exchange value of the Patten Gas Company and a three-fourths interest of the Daggettown Company. Jones and Company proceeded from the engineers' point of view—coupled with the report of accountants. The other engineers were asked by bankers at what figure it would be safe to buy the property. The bankers approached the problem from the point of view of the investor in the bonds—the interest rate, capital invested, the necessary sinking fund, and the protection of the supply of gas. The two firms of operators made their estimates of value on the basis of continued operation, as a continuing, going enterprise.

Jones & Company thought the property was worth about $2,500,000. In reaching this figure they capitalized the net earnings on a 20 per cent basis—that is, a ratio of five to one

—($400,000 × 5 = $2,000,000) and added, apparently, the junk value of the property, perhaps $500,000. The second firm of engineers also capitalized the net earnings on a 20 per cent basis, giving a basis of value of $2,000,000 to which they added $150,000 for the net quick assets, and $50,000 for the value of casinghead gas on the Patten property which was not then being recovered. They reported to the bankers that the property was certainly worth $2,200,000, but it was not worth—under the most favorable estimate—more than $2,600,000.

The bankers approached the problem from an entirely different angle. They estimated that the life of the wells was at least ten years, and that a sinking fund would have to be set aside in order to retire all the bonds by the time the gas was exhausted. Or, in other words, they looked upon the proposition as a self-liquidating operation continued over a period of ten years. Eventually their profit, and that of the operators, was to be represented by the earnings after ten years—if the estimates of the engineers were not too far wrong—and the residue of value remaining to the property as junk or as the nucleus for an artificial gas business. At all events, they took very seriously the guess of one of the engineers that the wells might be exhausted in thirteen years, and reduced this, in the interest of conservative banking, to ten years. On this basis they would issue $2,500,000 par value of ten year 6½ per cent bonds; and these bonds they would purchase from the new company at 90. This would yield $2,250,000. The bonds would carry an annual charge of $162,500. The sinking fund would require $250,000 a year, thus making a total annual charge against the earnings—after taxes but before depreciation—of $412,500. This was the amount at which the current earnings were running. The bankers estimated, therefore, the value of the fixed property at $2,250,000, to which they added $143,000 for the current assets. This gave a value of $2,393,000 for the property. They increased this estimate to $2,500,000 at the request of the operators with whom they were acting when their attention was called to the fact that their estimate had made no allowance for the junk value of the plant at the end of ten years.

The first firm of utility operators—those with whom the bankers were co-operating—approached the value from two angles, first from that of a business to be exploited and second, from that of a business to be continued indefinitely. Under the former caption they capitalized the net earnings of $400,000 on a 20 per cent basis—$2,000,000 adding $100,000 for the quick assets and $500,000 for the value of the undeveloped gas lands—making $2,600,000. As a continuing business they subtracted from $430,000, the estimated cost of annual drilling, $60,000, making $370,000 net. They added to this $30,000 to be realized from the sale of casinghead gas, up to then wasted, and capitalized the balance at 20 per cent, giving as in the other calculation, a value of $2,000,000. To this they added the $100,000 net quick assets, $200,000 for the franchise and the privilege it would give them to control electric companies in the territory, making $2,300,000. To this they added $400,000 for the value of certain contracts, both for purchase and sale of gas, and subtracted $150,000, the probable cost of building a new blue or unenriched water gas plant to dilute and thereby protract the available supply of natural gas. This gave a valuation of $2,550,000. After long consultation with their bankers, they bid $2,565,000 for the property, a kind of compromise between the bankers' estimate and their two estimates.

The second firm of public utility operators, independently of the former, bid $2,600,000 for the property. The writer is not definitely familiar with the methods pursued by this firm in reaching their valuation but was told that they capitalized the current net earnings on a 20 per cent basis, as the others had done, and added a considerable amount to this figure because they wished to acquire the property in order to enlarge the operations of their holding company. That they capitalized the earnings on a 20 per cent basis, as at least part of their process of valuation, the writer is certain from conversations. This bid was immediately accepted.

From a comparison of these estimates of value the following points call for comment. All the estimates of value for the purpose of purchase were based primarily on actual and potential earning power and no one was at all concerned with original cost, plant account on the balance sheet, or reproduction value. Four out of the five employed a ratio of five to one between value and net earnings, that is, they capitalized the net earnings on a 20 per cent basis. Finally, all five of the estimates were so close together, even after the variety of adjustments, that the highest was less than 10 per cent greater than the lowest. Such closeness is indeed remarkable, even for estimates based on capitalized earnings, and shows the unanimity of judgment concerning value of practical business men forced to decide in a relatively short time the actual value of a rather complex business structure to be purchased for the purpose of promotion.

Perhaps the most difficult, and so far as results are concerned the most important point in any theory of value based on earning power, is the rate at which earnings shall be capitalized. A comparatively large error in computing net earnings—by an over- or an under-estimate of depreciation, for example—is not of as much importance in the final result as a comparatively small difference in the ratio at which the earnings shall be capitalized. Yet the determination of this ratio is at best a matter of guess-work, but a matter of guess-work supported by the evidence of how businesses of various kinds are being, at any one time, actually sold. In other words, such guess-work is subject to the best kind of pragmatic test, namely the evidence of actual experience.

Rates Used for Capitalizing Earnings—Various Instances.—At a former place in this chapter it was suggested that businesses could be arranged in a kind of series with those requiring little managing ability and little risk at one end, and those requiring a great deal of ability at the other. In 1925 a medium-size water works system would sell on a 7 per cent basis,[c] after allowance for its net quick assets. A large electric light situation, with gross earnings in excess of a million dollars, would sell on an 8 per cent basis—net earnings to be computed after taxes but before depreciation. A medium size electric light plant would sell on about a 9 per cent basis—using the same method of computing net earnings; and a small situation on a 10 to 12½ per cent basis. This gives an indication of the rate of capitalization for business in 1925 involving little risk and not unusually great administrative ability to insure success.

The rate at which a railroad, merely as a piece of property, is to be bought or sold on the market, is exceedingly difficult to ascertain. Railroads are not like water companies or small electric plants, acquired first by one operator, then by another. Nevertheless, in the few cases in which there is anything like competitive bidding it would seem that they have a value based on about 10 per cent of their earning capacity. This is well illustrated by a little incident that occurred early in 1926. The Southern Pacific Company petitioned the Interstate Commerce Commission for authority to acquire the Dayton-Goose Creek Railway,[d] for the sum of $900,000. The par value of the stock was $25,000, and the total property could not by any system of physical valuation exceed $500,000. Its earnings were approximately $95,000. In 1923 the Gulf Coast Lines had sought the authority of the Interstate Commerce Commission to acquire the little road for $925,000, the earnings being then approximately the same. This earlier petition was denied by the Commission on the ground that the contract price was too high, it being nearly twice the tangible assets. In other words, both the Southern Pacific and the Gulf Coast roads evaluated the little railroad on a 10 per cent earning basis.

---

[c] A 7 per cent basis means, of course, that the net earnings are considered as 7 per cent of the value; or conversely the value is about 14⅓ times the average net earnings.

[d] This little road was incorporated in 1917, and has a short line of twenty-five miles in length from Dayton to Baytown, Texas. See notice *N. Y. Times,* January 8, 1926, page 25.

The ratio of capitalization for industrial enterprises cannot be gauged as accurately as that for utilities because of the lesser degree of uniformity. When a steel business is sold, for illustration, there are probably many considerations which add or detract from any standardized value based merely on the capitalization of net earnings. This is true of any industrial business.

Nevertheless, business men are willing to buy and to sell industrial businesses at a level of price based on the capitalized earnings, provided they can average these earnings over a sufficiently long period of time. In other words, whereas public utility operators are willing to buy properties on the evidence of a single year's earnings, on the assumption that utility earnings are constant, purchasers of an industrial require that the earnings be averaged over a period of years in order to ascertain the actual, permanent earning capacity of the business rather than its sporadic or temporary earning capacity.

The period of five years has been used. A longer period might be necessary in the case of enterprises subject to abrupt and sudden fluctuations. The purpose, however, of selecting a definite period of time is to reduce the earnings to a standard, rather than follow any arbitrary method of averaging apparent earnings. Suffice it to say that the period should be long enough to even out unusual fluctuations, but not so long as to give undue weight to circumstances of the remote past which are no longer of significance to the business.

With the average earnings available over a period of years the unusual circumstances affecting the business can be, for our purposes, neglected and the problem of valuation becomes clearly one of the ratio of capitalization. Undoubtedly, this ratio must be considerably larger for industrial enterprises than for public utilities. In one of the few cases in which the rate of capitalization for industrials came before the courts the

United Circuit Court ruled that a maximum return of 15 per cent was fair "in a business of the hazards proven" to exist in the production of newsprint paper.[4] Clearly the evidence deduced by Badger [5] indicates that the investor in the securities of an industrial business demands more than 15 per cent.[e]

Badger, going over the same subject, concludes that there are general tendencies, or approximations, which are indicated "by making four broad classes of industrial companies, indicating the ratios which one would normally expect to find within a given class." The following classes, with corresponding ratios, are suggested as the basis for an investor's judgment of value: [7]

Class I – Low Risk	12% – 14.99%
Class II – Medium Risk	15% – 19.99%
Class III – High Risk	20% – 24.99%
Class IV – Very High Risk	Over 25%

But the investor does not buy a business; he buys only a share of a business. Although the price at which the investor values the common stock of an industrial enterprise, as compared with its earning capacity, may throw light on the value of the enterprise, it is by no means conclusive. Yet there is very little direct evidence that is conclusive. Now and then a business is bought outright. The Bethlehem Steel Corporation bought in 1922 two large steel companies. On the basis of a five-year average annual earning power it acquired the Lackawanna Steel Company on a 18.8 per cent basis, and the Midvale

---

[e] The following table from Badger [6] is very illuminating:

Name of Concern	Period (Inclusive)	Ratio of Earnings to Market Value of Common Stock, with Earnings Determined by Comparison of Balance Sheets
General Electric Co.	1912–1921	11.73%
American Locomotive Co. (9½ years)	1912–1920	21.03
Central Leather Co.	1912–1920	14.32
Studebaker Corporation	1912–1921	22.16
United States Steel	1915–1921	17.74
Yale & Towne	1915–1921	19.50
American Brass Co.	1912–1919	13.50
Brown Shoe Company, Inc.	1913–1919	17.80

---

[4] Re: Selling Price Newsprint Paper, etc., U. S. Circuit Court for Second Circuit (Sept. 25, 1918).

[5] *Op. cit.*

[6] *Op. cit.*, 119.

[7] *Op. cit.*, 123. Appendix B, page 173, is illuminating.

and Cambria Steel Company on a 24.5 per cent basis.[f] Other instances can undoubtedly be mentioned, but unfortunately each case has special circumstances attending it.

An industrial business of considerable size, well organized and with a record of earnings over at least five years and with only a moderate amount of risk incident to it should be capitalized on at least a 20 per cent basis. That is, the business is worth not more than five times its basic earning capacity. If the business is small, although well established, it is probably worth not more than four times its annual earning capacity—a 25 per cent basis. Businesses attended with marked hazard are worth even less than this. These are, perhaps, as broad generalizations as can be made.

---

[f] Badger (*op. cit.*) gives details:

Company Acquired	Average Annual Earnings	Price Paid	Percentage of Return on Purchase Price
Lackawanna	5,144,338	27,294,034	18.8
Midvale & Cambria	15,507,021	63,492,710	24.5

CHAPTER III

THE BANKER'S CONTRIBUTION TO PROMOTION

The service of the promoter is to conceive the enterprise and help to formulate the plans for bringing it into being. The main function of the investment banker is to secure the necessary capital from investment sources. The promoter directly or indirectly brings the enterprise to such a state of development that the investment banker feels willing to assume financial guardianship over it, and carry on to completion the plans formulated by the promoter. In addition to thus procuring the capital, the investment banker may also agree to fulfil certain implied obligations, such as creating a public market for the securities and co-operating in the management. Sometimes this implied obligation extends to the actual management of the enterprise after it is in operation.

No distinction will be made between the work of the investment banker in connection with new enterprises and those long established. His activities and the responsibilities and the methods he pursues are much the same in either case. Yet special emphasis will be laid in this and in the immediately succeeding chapters on the investment banker's connection with promotions.

Investment Banker *vs.* Institutional Banker.—The functions of the investment banker are distinct from the functions associated with bankers in the ordinary thought. This distinction is especially important because of the confusion of terms. In reality, the investment banker, gathering together the small savings of the community, occupies a far different economic position from the institutional banker who lends his aid temporarily to the financial operations and enterprises which are already in existence and prospering. The latter is concerned with the temporary conditions of the money market; provided that he has a knowledge of business conditions at short range, so to speak, he does not concern himself with long-time economic movements, nor is he primarily interested in the rates of interest on stocks, bonds, mortgages, and other long-time obligations. The investment banker, on the other hand, does not lend money for short periods of time. He is a merchant who deals in long-time capital. His place in the economic machinery of the country is to transform small savings into permanent capital—railroads, power dams, and manufacturing plants. He mediates between mere capital, as represented by savings, and mere administrative ability, as found in the business man.[1]

Invest
banke

Capital is brought into industry and made productive in, roughly, five different forms, depending on the period during which it is presumed that the party furnishing the capital will permit of its use by the managers of the enterprise or the entrepreneur. The most mobile of all forms of capital is the demand or call loan, which involves no responsibility of time. The market for demand money fluctuates rapidly and abruptly in accordance with the demand and supply of absolutely mobile capital, as registered by unutilized bank deposits on the one hand and the requirements of stock brokers on the other. A little less mobile is the market for merchants' and manufacturers' commercial paper originating through the necessity for carrying inventories or other assets easily and quickly liquidated. The period of these obligations extends from one month to six—seldom a year except in the case of certain well-established corporations, like the International Harvester, whose business is essentially seasonal. The market for this form of capital is less delicate in its adjustment than the market for call money, but it rests upon essentially the same basis, namely, the amount of fluid capital in the district or the country, reinforced by certain artificial credit stimulants. Still

---

[1] This conception has been expressed by an economist thus: "Issue houses, brokers, underwriters, etc., are concerned with new issues. Their function, quite clearly, is to convey free capital from the group who save and own it—the pure capitalist class—to the group who use it—the pure entrepreneur class. By their agency an enormous amount of capital has been carried from one group to the other." Lavington, "The Social Interest in Speculation," 23 Econ. Jour. 37.

[illegible]

another kind of capital is represented by that invested in short-term corporation notes, short-term bonds, and securities the maturity of which is within approximately ten years of the date of issue. The average length of these loans is from three to five years. They are issued in order to finance permanent improvements during those periods when the rates obtainable on longer forms of obligations appear too high. The supply of this form of capital is derived from two sources—the less fluid assets of the bank and the more fluid funds of investors. It comes from the capital, rather than the deposits, of institutional banks and from the savings of individuals who for various reasons do not care to place their funds in longer term investments.

Much less mobile than the forms of capital thus far mentioned is the long-term bond. Such are investments in permanent or fixed assets. Admittedly they cannot be liquidated. The income return they yield to the investor comes only through their earning capacity. This form of capital comes exclusively from investors—both individuals or institutions—and it includes distinctly the largest part of the savings fund of the community. Lastly, there is the absolutely immobile form of capital investment represented by stocks. These are not debt obligations. They therefore involve no date of maturity and by their very conception represent investment in fixed assets which cannot be turned into money. The fact that the individual has an opportunity of disposing of stocks lies merely in the fact that there is a market for them in the community. The corporation assumes no obligation to redeem them in money at any time.

Bearing in mind the above classifications, it seems clear that the institutional banker is concerned only with providing funds for the call money market and the market for commercial paper. It is true, some investors have of late placed a portion of their funds in commercial paper, but this tendency has been distinctly discouraged by the investment banker as affecting his sources of supply for securities of longer ma-

Commercial [illegible]

turity. The market for short-term corporation notes is partly in the hands of the institutional banker and partly in the hands of the investment banker. The conditions of the money market at any one time affect the relative influences of the two groups of bankers. The supply of capital for the last two classes, the long-term bonds and stocks, is entirely in the hands of the investment bankers. It is these two classes of securities, representing as they do a part of the market of capital distinct from all other forms of capital obligations, that afford a field of operations for the investment banker.[a] The shifts of fashion in investment circles is seen from the variations in investment taste during the last ten or fifteen years.

---

[a] This difference between the institutional banker and the investment banker is further seen by the difference of attitude which they take towards the balance sheet of a corporation. The institutional banker is primarily interested in the net quick assets above current liabilities because it is from these, rather than the permanent assets, that the business is able to meet its current notes. Whereas the investment banker, although interested in observing that the net quick assets are ample so that the business is not in danger of failure, is far more concerned with the value of the permanent assets, especially as this value is reflected in the continued earning power of the business.

In 1911 and 1912, investment bankers were issuing practically no short-term notes and the comparatively few issues that were coming onto the market were readily absorbed by the banks and the few investors who had a natural predilection toward this form of security. Whereas in 1913, owing to general uncertainty in the market for all forms of securities and the universal demand for capital all over the world, many short-term obligations maturing in from one to five years were being issued and marketed by investment bankers. In the early part of 1914, prior to the opening of the Great War, there were comparatively few issues of short-term corporation notes. But the comparatively small amount of corporation financing done in the autumn of 1914 was in notes. During 1915, the long-term bond market steadily improved, and as a result the proportion of notes steadily declined. Except in the case of foreign governments, comparatively few notes were issued in 1916. After the entrance of the United States into the Great War in April, 1917, practically all private financing was in notes, even the strongest and oldest corporations being forced to temporary expedients. From February, 1918, to November, 1918, the only new long-term bond issues of any considerable size, except for a few municipals, were the government bonds. Within a week of the signing of the Armistice on November 11, the general bond market advanced from two to ten points, an average of at least 4 per cent. At the same time the investing public absorbed completely the floating supply of long-term bonds and the long-term bonds remaining on the shelves of the bond houses. Within three weeks, corporations of high credit had begun to offer long-term bonds to general investors at a low—relative to the preceding year—investment basis. By January 1, 1919, a wide general market for long-term investment securities had been well established, by August it had disappeared.

Investment Banker *vs.* Stock Broker.—The economic services of the investment banker are differentiated also from those of the stock broker. The latter, both in the ordinary acceptation of the term and in the sight of the law, is merely an agent. In no sense does he assume any obligation toward the intrinsic worth of the securities in which he deals. His profit consists of the commissions charged for his services and such gains as he makes on interest charges. In no sense is he a merchant like the investment banker, for he neither buys nor sells securities for his own account. He assumes no risk in the fluctuation of market value or in the intrinsic worth of the bonds and stocks he sells. He merely executes the orders of his customers on their responsibility alone. Although he may sometimes give opinions, either in response to inquiry or of his own motion, concerning the intrinsic values of securities, this show of knowledge is merely a bait to stimulate his business and carries with it no greater responsibility than the good or evil that may accrue to his reputation.[b]

One must deplore the fact that many national banks and stock brokers have added to their regular business the business of the investment banker. Large city banks, as the National City and the First National banks of New York, and stock brokers generally have added "bond departments" which assume the functions of investment bankers. The institutional bank, especially the small local trust company, is in no position to become a merchant in securities, much less undertake to promote or finance new enterprises.[c] If the stock broker

---

[b] A good illustration of the stockbroker's unasked-for advice concerning securities is the market letter with which many brokers solicit business. These market letters contain statements of fact and implied assurances concerning the relationship between the market price and the intrinsic value of securities. They are distributed free. The advice that they contain is frequently worth as much as the prospective customer pays for it.[2]

[c] An illustration of the unfortunate blunders which some large banks make in going beyond their regular business is afforded by the rôle of the National City Bank of New York in the organization of the Amalgamated Copper Company. Latterly this and other New York banks and trust companies have gone extensively into the investment banking business through the formation of subsidiaries for this specific purpose—the National City

---

[2] See Meeker, J. Edward, The Work of the Stock Exchange (1922).

enters the field of investment banking, it is because he is lured into it by the apparently large gross profits. Ordinarily he merely helps to sell, for a liberal commission, the securities—quite generally the less salable ones—of investment bankers. Instances in which the stock broker assumes the position and the obligations of the investment banker are usually unfortunate both for himself and for his client. They are unfortunate for himself because he has jeopardized the reputation and good-will of his own business by assuming risks and responsibilities that lie outside his legitimate field; unfortunate for his client because the latter is compelled to pay the penalty of increased risk through the broker's lack of knowledge.

True Function of Investment Banker.—The investment banker is essentially the entrepreneur of entrepreneurs. Although not necessarily a good business manager himself, he has acquired or he should have acquired through his experience, an almost prophetic judgment of the business ability and integrity of the persons with whom he deals. Adam Smith remarked a long time ago, that a critic of business conditions is not necessarily a successful business man; but he must have the insight and knowledge to appraise rightly other men's business. The man engaged in a single enterprise is too much concerned with its details to consider industrial values in a general way or in their true perspective. The economic world is seen through glasses deeply colored by his own immediately present experience. The investment banker, in contrast, must be a practical economist. He must be able to see the forest in spite of the trees. He must see small businesses on large canvases, and in their right perspective with reference to others of greater or lesser magnitude. An investment banker who attempts to deal in the securities of gas companies, for illustration, must be a superior judge of the practical operators in the field, and although he may have no understanding of the proper "pressure at

---

Company, the Guaranty Company, the First Securities, the Chase Securities Company, etc.

the reducers," or of "gas mixtures," he must distinguish with unfaltering judgment those practical operators who, through such understandings, have made successful careers for themselves.

The investment banker fulfills three important economic functions. ① First, and possibly most important, he mediates between the promoter, who has conceived and developed an important process of production, and the great body of small savers whose aggregate savings are necessary for the further development of the enterprise. In this function the investment banker is in no sense a capitalist, but rather the retailer of forms of capitalistic investment; as such a retailer he is an intermediary between the entrepreneur and the capitalist. The importance of this mediation has increased greatly of late years, owing to the diversification of industry on the one hand, and the wide extent of small savings on the other. ② Secondly, he assumes the almost equally important function of separating the economically justifiable enterprises from those the success of which is less probable. In this function the investment banker is a true entrepreneur in the sense of determining the direction of flow of new capital investment through a process of selection. ③ Thirdly, he co-operates ordinarily with the promoter in working out the financial plan of a new enterprise and organizing the business. This last function is of importance only in connection with new enterprises.[d] In addition to these three primary services of the investment banker there are others which may or may not be present according to the individual conditions surrounding the particular issue of securities with which he is dealing.

---

[d] This function is not a necessary part of the normal activities of an investment banker, especially when the securities with which he deals are those of old and tried enterprises. In that case he is little more than an agent for the directors, and the responsibility is borne almost entirely by the investors, whose access to knowledge of the enterprise is equal to that of the investment banker. For example, the securities of all railroads which have been in operation sufficiently long to have already attained the character of investments are seldom sold with any implied guarantee on the part of the investment banker. He may or may not be represented on the board of directors, and if so represented, the fact does not affect the opinion of the enterprise as held by the prospective investor.

Distributive Function.—The first function of the investment banker, that of mediating between the promoters and the savers, is analogous to that of any merchant who distributes any commodity to the ultimate consumers. The sale of securities depends upon the same methods of merchandising as the sale of any other commodity. Success in this direction is more a matter of advertising and salesmanship than of judgment and insight. The reputation and good-will, however, of the investment banker are probably more significant in this connection than the good-will of any other class of merchants. Unlike most merchants, the investment banker deals only in representative values. The real values lie in the earning capacities of the industries whose securities he sells and these cannot, like loaves of bread and yards of cloth, be tested by the prospective buyer. The latter must therefore rely implicitly on the honor and wisdom of the banker. Quite generally the investment banker sells his securities more upon his own standing and the success of previous enterprises with which he has been connected than upon the actual value of the assets or earning power behind his securities. In this light good-will is perhaps a more valuable asset to his business than to that of any other merchant, and ordinarily he protects his reputation at all hazards, even though it involves him temporarily in heavy losses.[e] The economic usefulness of the investment banker is measured by his success in tapping the small savings of the community, and the holders of these small savings are least able to gauge the worth of the enterprise, and most likely to rely implicitly upon the judgment of the investment banker. So this good-will, as reflected in the success with which he directs the investments of the small savers, is of distinct social value in bridging the gap between the primary sources of capital and the final employment of capital in economically justifiable enterprises.

---

[e] This is even more important for a small investment banker with a loyal but exacting clientele, than for the large banker whose customers are constantly fluctuating. A small investment banker in Hartford, Connecticut, some years ago had the misfortune to sell large amounts of the securities of an industrial to his regular customers. The enterprise was a failure. Voluntarily he reimbursed them all for the losses. Viewed in terms of his continuing business, this was the expedient thing for him to do.

Selective Function.—The second function, that of selection of the enterprise, is peculiarly that of the investment banker. It comprises his most difficult work and the part of his business involving the largest risk. It was pointed out in the preceding chapter that promoters are by temperament, by experience, and from motives of expediency, optimistic. In their enthusiasm over their enterprises they neglect to gauge the possible causes of failure. It is the function of the investment banker to apply every conceivable test to the statements presented to him and thus protect the investing public from the unjustified hopes and, it may be, the misrepresentations of the promoter. The investment banker is therefore the means to bring about a kind of industrial natural selection among incipient enterprises.

Every investment banker of prominence is presented with a continual succession of possible enterprises in various stages of development. Everyone has his objective and subjective methods of selection, the former depending on certain readily comprehended rules-of-thumb, and the latter upon his skill and intuition in gauging both the business ability of the promoter and the prospective demand for the article to be supplied by the new enterprise. It is probably not an exaggeration to state that upwards of ten enterprises are rejected by every investment banker for every one that is accepted. Of these ten, some never reach stages beyond the mere imagination of the promoters, while others represent plans all ready to put in execution. It very commonly happens, of course, that plans which are rejected by one investment banker, will be accepted by another.

Selection Aids.—In separating the good from the bad and the indifferent, the investment banker has three sources of outside counsel, although in the end the final decision must rest on his own personal intuitive judgment. He calls to his assistance the engineer, the accountant, and the lawyer. Each renders a report, which is sometimes given informally in conversation and sometimes takes the form of an elaborate and formal document.

It is the work of the engineer to check the promoter's estimates of construction costs and the technical practicality of the whole undertaking. This may include elaborate calculations covering costs of production, availability of technical and skilled labor, availability of raw materials, extent of market, and even selling expenses. Of course the importance of the engineer's advice will depend considerably on the nature of the industry. A gas, electric light, railway, or mining enterprise would not be considered a moment without an elaborate engineer's report as a check; on the other hand, an engineer could render little help in the promotion of a bank, an insurance company, or a company devoted to the exploitation of a patented novelty.

The accountant checks the financial reports submitted by the promoter. He may even undertake independent investigations without the knowledge of the promoter for the purpose of performing indirect checks on the promoter's estimates. Naturally the accountant's figures are most useful in the promotion of a new company organized to take over the business of one or more established enterprises. Such instances occur in the promotion of industrial consolidations or in the reconstruction of local public utilities. In these cases, the accountant's report of the past earnings of the old companies gives some intimation of what the future earnings of the combination or reconstruction are likely to be. In case of an absolutely new enterprise, the accountant may be employed to report on the earnings of similar enterprises. Such reports, however, even when rigidly scrutinized, are of little value.

Lawyers are asked to report on the validity of patents, franchises, titles, riparian rights, and the validity of contracts and trade agreements. Owing to the heavy legal expenses of an exhaustive investigation of any of these questions, such as would warrant the bankers in proceeding with the promotion, it is customary for the lawyers to make a preliminary report in the first instance. If this is satisfactory the bankers will usually insist on an elaborate legal investigation before committing themselves, but this would be made only if they had every intention of going through with the promotion, and its expense would probably be shifted on to the shoulders of the new corporation.

But after all these experts have rendered their reports, the ultimate judgment must remain with the banker himself. He alone is responsible in the end; he cannot shift the burden. And he recognizes this fact. He knows that if the enterprise fails he cannot excuse himself on the ground of an engineer's faulty judgment or of the error of an accountant or a lawyer. A few years ago Boston banking interests promoted an inter-urban traction company in the west. Reputable lawyers asserted that the franchises, rights, and titles upon which the road was built, were sound. After operation had commenced, the road was sued for damages on the ground that it crossed the previously granted right of way of a railroad corporation, which existed only on paper. The bankers could not hide behind the blunder of the lawyers, because they were responsible for hiring the lawyers.

Aside, however, from the purely technical questions, the banker must select his promotions very largely by his own intuitive judgment. A promotion proposition might very well receive the assent of engineers, accountants, lawyers, and a host of other experts, and yet be rejected by the banker because his innate business judgment counseled against it.

The usual reason for the rejection of a legitimate enterprise by bankers is that, in their shrewd business judgment, the new enterprise does not seem to be in a position to meet an already existing economic demand at a price that will render the company profitable. Often the weakness, from the business point of view, is the prohibitive cost of production. There is an enormous demand for automobiles that is not yet satisfied, and probably never will be; but an enterprise which was projected with a view to satisfying this demand would be rejected by any banker because the satisfaction of the demand would involve the production of automobiles at so low a level of cost as to render the business technically impossible. For this reason, intensive development of new electric light plants, power companies, railroads in an unproductive country, new steamship lines, and other enterprises designed to supply a demand at low costs, would be rejected by the banker, not because of a failure to understand the demand, but because of a doubt of the ability of the enterprise to yield a profit, though it succeeded in supplying the demand. On the other hand, many enterprises are rejected because investment bankers doubt that a demand will exist after the enterprise is in a position to supply it. Thus, Bell and his associates found it impossible to secure the co-operation of any bankers at the time of the promotion of the telephone, not because of doubts concerning the telephone itself, but because of doubts of the existence of an economic demand for telephones. Subsequently, after Bell and his associates had convinced the public of the economic demand for telephone service, new companies sprang up in all sections of the country seeking to take advantage of the newly created demand. Investment bankers showed no hesitancy in supplying the capital for these enterprises, because experience had already shown the existence of the demand.

In all probability most of the so-called inventions which are presented to bankers and capitalists are rejected because of the failure to recognize an economic demand for the article. The inventors of patent vacuum cleaners, patent razors, patent looms, and patent chemical preparations, find it almost impossible to secure capital through regular channels because of the general skepticism of bankers as to the willingness of the public to purchase the patented articles after they are placed upon the market. The inventor finds no difficulty in convincing the banker of the value of his invention; he finds it impossible to convince the banker of the social or economic need of the invention.

No attempt, however, to classify the causes which have led bankers to reject promotion propositions is of much moment. In the end, the banker's judgment is a matter of business intuition. A trained banker seems to scent intuitively the enterprise which will be successful. It is largely, although not entirely, an insight into the business ability and integrity of the promoter. Luck has little to do with it—Adam Smith stated that good and bad luck belonged to the vocabulary of small shopkeepers. The fact that successful bankers thoroughly trained in their business almost invariably select successful enterprises with which to identify themselves, while others have an equal partiality for enterprises that ultimately result in failure, is not a matter of chance nor of the normal accidents and hazards of the business world. Investment bankers must feel, with extreme sensitiveness, the intangible atmosphere that surrounds every enterprise. They lay far greater stress upon the intellectual and moral capacities of the men associated with the prospective enterprise than they recognize themselves or are willing to admit to their clients. The conspicuously successful operators in any stable line of industry—and the number for each industry can in all probability be counted on the fingers—can secure any reasonable amount of capital that they wish, at times when there is a market for investment securities. The statement is especially true of successful operators of electric light and power companies, of railroads, or cotton mills. Other men cannot secure capital from bankers at any time, even though their enterprises are objectively sound. This amounts almost to saying that the bankers select their promotions according to the men and not according to the business. While such a statement of the case is perhaps too strong, it contains much truth.

Social and Economic Service of Selection.—One cannot too strongly emphasize the fact that significant contribution of the investment banker lies in his keen appreciation of the future social and economic needs of society. This appreciation to be of greatest usefulness must be tempered by an understanding of current social conditions and economic legislation. An enterprise that might have been a success financially in the year 1899, might not be a success in the year 1926, and the difference might not be due to a difference in the nature of the enterprise, or in the capacity of the promoters and managers, but rather to a change in social and economic conditions. A great war had changed the economic complexion of things as well as the geographical. Thus, a railroad could probably have been promoted successfully in eastern territory any time between 1898 and 1906, with reasonable chances of success, and the same railroad, if promoted at any time since 1907, would not in all probability have been a success. Money could have been obtained at a lower rate of interest in the earlier period, higher freight rates could have been charged, construction costs would have been less, and the railroad would have been freer from interference by legislative or judicial bodies. Investment bankers are very sensitive to these general conditions, and without attempting to formulate fundamental principles to guide their decisions, they have an almost intuitive understanding of the effect of economic and social changes on the probable success of the enterprises that are presented to them. This power of intuition is of great value to society because, probably more than anything else, it tends to stop the investment of capital in an economically unjustifiable undertaking, and to conserve social capital for use in productive enterprise. Through their intuitive sense and their keen appreciation of men and industry, investment bankers conserve the savings of the community. It is this conserving influence which justifies the charges on industry which their services involve.

Administrative Function.—In addition to gathering together the little rivulets of capital from the savers of the community and the selection of enterprises worthy of development, the investment banker sometimes co-operates in the actual organization of the business. He will, probably, with or without the aid of the promoter, formulate the financial plan according to which bonds and stocks are issued. He will supervise the organization, and he may audit the construction accounts in case considerable amounts of money are to be spent immediately. In a sense, this is the investment banker's most significant constructive work. It is discussed at considerable length in the next few chapters covering the financial plans of different types of enterprise. In addition to these promotion services, the investment banker may plan to become permanently identified with the enterprise, even to the extent of eliminating the promoter. Not infrequently, especially among promotions of industrial combinations, the promoter's name remains connected with the enterprise for only a few weeks, or a year at most, while the investment banker's is prominent during all its early formative period.

A certain Parks, who promoted the Cotton Duck combination in 1898, was not heard of after he had secured the promises of money. The trust company which assumed the responsibility of securing the capital, however, remained prominent in the financial affairs of the enterprise for a long period of time.[3] And in the case of the American Can Company the promoter of the enterprise shifted the entire responsibility to the shoulders of two bankers, who subsequently passed it over to a speculator.

In addition to co-operating in placing the enterprise on its feet, the investment banker quite generally retains some form of supervision over the enterprise. He remains a member of the board of directors and, especially if he is the only investment banker concerned, he may become chairman of the finance committee. There is an implied obligation on his part that if the enterprise is in further need of capital he will do his utmost to supply the need. There is an implication as well on the part of the corporation that its directors will not seek the services of other investment bankers without his consent. It is quite true that these implied services are not always required, but investment bankers are seldom willing to lend the credit of their reputation to the sale of securities of an enterprise over which they have no supervisory control especially if they have not the utmost confidence in the permanence of an able and honest management more or less of their own choosing.

---

[3] Dewing, A. S., Corporate Promotions and Reorganizations, 337 (1914).

Another service which, by implication, the investment banker almost always assumes, is that of maintaining a fair market for the securities he has already sold. Although the permanent investor in the bonds or stock of a corporation does not look forward to an early sale of the securities, yet circumstances frequently arise that require him to dispose of them. Ordinarily it would be impossible for him to find a customer at a fair price, especially if the enterprise was but little known, and he would be compelled to sacrifice his securities merely for want of an adequate market. This market the investment banker is almost always ready to supply.

It is true that there are some investment bankers who are notoriously lax in this particular, assuming that their clients will never need to change their investments, and, as it were, penalizing them if the need arises. But so common has become the practice for investment bankers to buy back at a reasonable price—usually from 2 to 6 per cent less than the prevailing selling price—the securities which investors care to sell, that a refusal on the part of one banker to follow this custom would probably so affect his reputation among investors as to curtail his business seriously. These matters in connection with the banker's position, once the enterprise has been successfully promoted, belong to the general subject of marketing securities. A detailed discussion of them is, therefore, postponed to a later chapter.

CHAPTER IV

THE GENERAL PRINCIPLES UNDERLYING THE FINANCIAL PLAN

It was suggested in the opening paragraphs of Chapter I of Book II that the procedure of promotion could be conveniently divided into five steps, of which the first two represented, essentially, the work of the promoter. The third, that of the formulation of the financial plan of the new enterprise, is the result of the joint effort of all concerned in the promotion, although the investment banker who proposes to stand godfather for the new enterprise will, in all probability, exercise a determining voice in arranging all necessary details.

Nature of the Financial Plan.—The financial plan is the plan of stocks and bonds which the new corporation proposes to issue at its inception. This covers the amount of each security to be actually issued and the amount to be authorized for subsequent issues. Formulating such a plan involves the decision as to the proportion of each type of security and the interest rates the bonds must bear, or the dividend rates for the preferred stock. Decisions in these matters must depend on a wide knowledge both of the industry in which the prospective corporation is to operate and of the resources and the prejudices of the investing public among whom its securities are to be sold. In a very true sense, the study of the subject of the formulation of the financial plan is the nearest approach to a natural science of any of the steps of promotion. It is the one place above all others where knowledge based on experience is necessary. One can lay down clear principles for distinguishing between good and bad plans of capitalization, although one cannot describe general principles for distinguishing between successful and unsuccessful promotion projects.

Owing, therefore, to the fact that exact knowledge is more serviceable here than anywhere else in the promotion, the general subject of financial plans will be discussed in considerable detail. And as the guiding principles differ according to the type of business enterprise to be promoted, it is convenient to discuss the capitalization plans of different businesses separately. Yet because all financial procedure must rest ultimately on sound and rational presumptions, there are certain general principles which are true under all conditions. It is convenient to consider these general principles before applying them to specific types of corporations.

It is very rare for the promoter to attempt to work out a financial plan for his new corporation before presenting it to the investment bankers. Ordinarily he merely brings the enterprise to the attention of the bankers, having accomplished the work specifically pertaining to its conception. He may offer the bankers a suggestion regarding the financial plan—usually unasked for and unwelcome unless he can support it by reliable promises of capital. Whether or not the first suggestion of a plan for financing the new enterprise comes from the bankers, they will assume the full responsibility for its development. This will involve not only formulating the general plan but also working out the minute details of its execution. For their work the bankers may ask for the co-operation of the promoter and the active advice of accountants and lawyers. But the actual responsibility will remain theirs, and theirs alone.

Fundamental economic principles should determine the financial plan of a new corporation. But ordinarily so intent are the promoters and bankers in getting the new enterprise started that their actions are dominated by the necessities of the individual case, which are apt to be interpreted in the light of a narrow expediency. Yet, because the financial plan must stand long after the promotion period and may influence the corporation's subsequent success or failure, there is no phase of corporate financial policy where there is more need for a full consciousness of underlying economic principles. The promoter-banker is here the architect of the new corporation. The form of the financial plan with which he endows it determines the lines which its whole future financial policy must follow.

Fundamental Considerations.—Four considerations determine the kind and proportion of securities issued at the promotion of a corporation. They are: the value and the cost of the tangible assets to be acquired by the new company, the certainty and regularity of the future earnings of the new company, the traditions and the width of the market in which the new securities would be sold, and, finally, the attitude of the promoters concerning the concentration of control of the new enterprise. Paramount to all else are the simple, perhaps fundamental axioms of finance: (1) that bonds should be issued only when the future earnings of the corporation are liberal and reasonably constant; (2) that preferred stock may be issued when the earnings are irregular but, when averaged over a period of years, give a fair margin over the preferred stock dividend requirements; (3) that common stock and only common stock should be issued when the earnings of the new corporation are uncertain and unpredictable.

Cost of the Property.—The value and cost of tangible property to be acquired by the new company are of great importance to the promoters and the bankers, as determining the amount of actual money required in order to launch the enterprise, but beyond this they have little significance. It is necessary, however, to know precisely the sources from which all the money is coming, as nothing would be more disastrous to the enterprise than that the corporation should find itself without funds before the completion of its factory or plant. For this reason, the promoters and bankers will probably go over the items of probable cost with great care before attempting to formulate any plan for financing the enterprise. If little actual money is required, the parties selling rights, equipment, or land to the new corporation being willing to take stock instead of money, it is probable that few if any bonds will be proposed, as the bankers will retain the possibility of a bond issue in the background as a kind of reserve against an unforeseen emergency. On the other hand, if much money is required, and the entire amount must be obtained through the sale of securities to the public, it is probable that the bankers will resort to a large issue of bonds in the first instance, as the easiest means of obtaining money. So that the relative amount of actual money to be required at the outset will determine, provisionally, the form of securities to be issued.

Future Earning Capacity.—Especially important is it for the bankers to recognize that there is no necessary connection between cost and income. This is the first, albeit negative, principle which must be clearly fixed in the minds of all concerned in the promotion. Cost may be a primary consideration in determining whether or not the bankers care to go into the enterprise, but once in, they must not presume that any given amount of property is destined to produce a given profit. The fundamental earning capacity of the corporation will rest on its ability to produce a commodity that meets an economic need at such a level of price that its cost of production will be less than the market price of the commodity. Another way of phrasing this all-important economic principle is that a profit will result only when the cost of producing the commodity is less than the price fixed by the balance between the quantity of goods produced and the social demand. While it is perfectly true that the quantity of goods produced in any industry will in time inevitably decrease if the general margin between cost and selling price is less than a fair return on both the business skill and the capital employed in the industry, it is nevertheless true that in any concrete individual case there is no connection between this margin and a specific investment of capital. The purchaser of the products of the prospective company will not concern himself in the least with the economics or the ethics of a just return on the invested capital. He will be interested solely in the question whether or not the price is such as he is willing to pay—whether this price affords the producer a fair return is no concern of his. Even in the lighting and transportation businesses, where the courts have insisted on a connection between the price of the service and the capital invested, the consumer has shown little actual concern over an adequate return to capital and the courts are powerless to bring into existence earnings on property when economic conditions render earnings impossible.

These considerations are not mere subtleties of economic theory; they are matters of great practical moment. A certain railroad in the Southwest built a branch line to a mining camp, where the first outcrop of ore indicated ore bodies of great richness. At the solicitation of the mine-owners, the railroad completed its branch before the workings were opened in order to be in a position to handle the large business that would presumably follow the development of the mines. The mining camp proved a failure because the ores contained too much sulphur to permit of their economical use, and the ore bodies proved too small to permit of the large smelter expenditures necessary to treat them. Not a carload of ore was shipped out of the camp. The railroad had expended upwards of $400,000 in money in building the line, yet, clearly, its property was worthless except as the rails could be taken up and relaid.

When the American Bicycle Company was organized, 1899, actual inventories and appraised property to the value of $22,290,151 were acquired. All this property was devoted to the manufacture of bicycles, then a very popular social "fad." Suddenly, from a total estimated consumption of 880,000 bicycles a year, the demand fell to less than 100,000 a year. Over ten millions of dollars' worth of actual property devoted to their production became absolutely useless. Three failures and reorganizations followed each other during which the value of the original property was totally lost and the large additions of capital dwindled to insignificant proportions.[1] Our competitive system of production knows no "ought" in the relation between property investment and earnings.

This fundamental fact of the organization of the present-day industrial world is of the utmost importance in any attempt to predict earnings. The purchaser of goods makes no elaborate calculations as to what he should or should not pay for his goods to give to the administrator a return justified by his business ability and the capital outlay. The science of economics also knows no "ought"; it concerns itself merely with what is. So that the actual cost of production, while in the long run a definite factor in determining price, through competition of unit with unit, industry with industry, is of merely incidental consequence in any given specific instance of the purchase and sale of a commodity and possible resulting return to the capital already invested in the enterprise.

The economic order under which our present business undertakings are conducted justifies earnings on invested capital solely on the basis of the performance of an economic service, as evidenced by the demands of society. These demands, moreover, are always exerted at one time. The price fixed by demand and supply at this one time takes no cognizance of the capital originally invested. The amount of that is forever fixed; if society no longer needs its products it will be cast aside without any reference to a just return.

The original cost of the land, construction materials and machinery entering into the expense of building a cotton mill—an element which must be taken account of in any economic calculation of the costs of all future cotton cloth produced by the mill—does not move up and down with the price of cloth. All other elements in the cost of cloth may vary, because the manufacturer may increase or decrease wages or buy his raw materials in markets which respond to changes in the price of his finished product, but the values of the things he purchased and used in the original construction of his plant are fixed and inflexible.

---

[1] For detailed account of American Bicycle Company, see Dewing, A. S., Corporate Promotions and Reorganizations, Chap. X (1914). Also 69 Chron. 696.

The New England Cotton Yarn Company had, at its inception, several million dollars invested in costly English mules. A change in relative labor costs made it cheaper to spin coarse and medium yarns on ring frames. Ultimately, the company had to be reorganized and the mules were sold for scrap iron.[2] While the first or original capital investment at the time of promotion is the constant which extends its influence over the long period of use, it is powerless to give any certain value to the goods actually produced and sold in the present.[a]

Except, then, in fixing the amount of money that must be raised at the time of promotion, the cost of the property acquired or to be acquired by the new corporation should exercise no influence on the financial plan. The determining factor is past and present earning power. This has two phases: the amount of earnings, and their presumptive regularity.

Of the three kinds of securities likely to be included in a financial plan—bonds, preferred stock, and common stock—bonds must be given first consideration. A default in bond interest precipitates bankruptcy; so that it may be laid down as axiomatic that the life of the corporation should not be stifled by a burden of interest charges too heavy for it to bear. If the promoters have reason to expect that the net earnings of their company will not, under any circumstances, fall below a certain amount every year, the wise course to pursue will be to make the interest charges, in case an issue of bonds were necessary, well below the lowest expected earnings. Conservative investors would frown upon a fixed charge of over half the irreducible minimum of anticipated income.

---

[a] The reciprocal of this proposition is also true. Variations in the price realized for the finished product cannot modify that element in the cost, which may be predicated to the original value of the capital investment. The two are as independent as two elements can be in a complex set of economic conditions, where nothing is absolutely unrelated.

---

[2] Dewing, A. S., Corporate Promotions and Reorganizations, Chap. VI (1914).

In case the company could get along without the issue of bonds, the preferred stock dividends might be allowed to run as high as two-thirds or even three-quarters of the minimum, but should in no case approach the limit. If the amount of earnings can be predicted with some degree of certainty, bonds should be issued up to a reasonable amount, as the new corporation can obtain money from the sale of bonds much more cheaply than through the sale of any form of stock.

The regularity of earnings is important. In case bonds are issued at the time of promotion, the interest must be paid regularly. If the corporation has a large issue of bonds and its earnings vary considerably from year to year, it may be thrown into bankruptcy at the first depression it encounters. And since the fluctuations in net earnings of any corporation engaged in the production of any commodity are great, conservative promoters and bankers are reluctant to issue bonds. This is especially true of manufacturing enterprises. Owing both to the unreliability of earnings of the property going to form an industrial consolidation, and to the extravagant predictions of the promoters, it is only in exceptional cases that the fixed interest charges of such an enterprise are made at all equivalent to the lowest probable earnings of the least prosperous year likely to be encountered. In the case of railroad enterprises, it is customary to observe less conservatism and to create a bonded debt with fixed charges that more nearly approximate the probable earnings of the new railroad. But this policy is based on the presumption that the earnings of the railroad will be at least constant and will meet no destructive competition during the first years of its existence, or until its earning capacity has been well established.

From this it is clear that no progress can be made in formulating the financial plan of any new enterprise until something is known concerning the future earnings. Such an estimate, however, must depend primarily on the nature of the industry. For this reason no attempt can be made to lay down general principles that apply at once to all kinds of business enterprise—for example, to the manufacture both of novelties and of staples, to railroads, and to insurance companies. The principles governing the estimation of the amount and the regularity of earnings of the various kinds of enterprise must be considered separately—as is done in the succeeding chapters.

Traditions of the Investment Market.—The traditions and the width of the market in which the securities of the new company are to be sold constitute a less important, but by no means negligible, consideration. When it is proposed to list the new securities on one of the stock exchanges, care must be taken that the financial plan is such as to encourage the best marketing conditions. On the other hand, when it is believed that the only agency for the distribution of the new securities will be the bankers' "over-the-counter market," the financial plan must be drafted in accordance with the wishes of a somewhat smaller but more particular class of security buyers. The prejudices of investors cannot be neglected. The investment public is fickle. At one time it covets apparent security with low income yield; at another time it will purchase only stocks paying high dividends, almost oblivious of the fundamental security. Bankers are usually fully aware of the prevailing temper of the public opinion and are guided largely by it; but they must also balance the various motives and determine to what extent their plans should be adapted to what may prove merely a passing whim of public fancy.

The most rational, and in a sense the most insistent, of these prejudices of the investing public is that based upon the peculiarity of state taxation laws. If a state has special and exacting taxation laws and it is proposed to sell the new securities to residents of the state, it is sometimes necessary to mould the entire financial plan about the requirement that the securities to be issued shall be non-taxable to their future holders. This holds true with special force in cases where it is proposed to sell the securities to residents of states which distinguish sharply, in their tax laws, between stocks and bonds.

Balance of Control.—The balance of control is another motive which frequently plays a large part in determining the form of the financial plan. It has been one of the chief causes for the increase of holding companies during the last fifteen years[3] and for the use of a wide variety of securities in a single financial plan. Most promoters and bankers believe in the future success of the enterprises they stand back of; they seek the public's capital much more than they do the public's partnership. They want the investors' money, but they do not want to surrender to the investors either the control of the business or the right to exceptional earnings. For this reason they wish to retain a sufficient proportion of the common stock to assure them a voting control. But to arrange a financial plan that guarantees a sufficiency of public money and does not at the same time jeopardize this control, requires careful planning. It is usually accomplished either by giving the common stock sole voting power and making the issue small—a device practiced by New England manufacturing businesses—or by making the common stock so large in amount that the proportion retained by the promoters and bankers exceeds the sum of the preferred stock issue and the common stock bonus distributed to the public. This is the policy employed in formulating the financial plans of public utility corporations.

---

[3] See Book IV, Chapter V.

CHAPTER V

THE FINANCIAL PLAN OF A NEW MANUFACTURING ENTERPRISE

The financial plan of a new manufacturing enterprise is ordinarily simpler than that of a railroad or other public utility. For that reason it will be discussed first. But while it is simpler in general outlines, in that it involves fewer kinds of securities, there are many considerations which make the formulation of the financial plan of a new manufacturing enterprise extremely difficult. Foremost of these is the great uncertainty of the earning capacity of the new company.

Invested Capital as Basis for Estimated Earnings.—The probable earning capacity of the new company is a consideration paramount to all others. In forming an estimate of future earnings the natural presumption would be that earnings will, in some measure at least, vary with the amount of capital invested in the enterprise. This is true, however, only in those industries in which a competitor may spring up and with the same outlay of capital produce and sell goods as economically as the concern already in business. That is, the normal earning capacity of tangible property should be emphasized only in industries operating under conditions which afford free competition, in cases where good-will, patent rights, or other intangible elements are not of substantial consequence. Such cases comprise relatively small businesses easily undertaken by men of average ability, businesses in which no patented processes or machines are required, or, if these are required for economical operation, they may be licensed or purchased by anyone. Furthermore, the business should be one which produces a stable commodity sold in such form that the identity of the producer is of no concern to the ultimate consumer. Any business complying with these conditions will yield a rate of return determined by the average rate of interest on the capital investment and the relative skill of management exercised by the men in control.[a]

Earnings of Other Businesses.—In the great majority of instances a better test of the future earning capacity of the new enterprise than merely its invested capital is the earnings of other concerns engaged in the same business. Under no circumstances is it worth while to make a comparison of probable earnings between two unrelated enterprises. Such a statement is not as foolish as it would appear. Several years ago a stock-selling agent offered for sale the stock of a prospective candy factory to be located in Brooklyn and gave as the chief reason why the particular stock should be bought, that the original investors in Singer Sewing Machine Company's stock reaped large returns. One can gain some faint idea of what candy factory earnings in the near future will be from candy factory earnings in the immediate past, but even then the periods of comparison must be short, else some unforeseen circumstance may render the prediction valueless. The most serious difficulty with this basis for the judgment of earnings lies in the personal equation present in any business. No two enterprises ever yield the same profit, even though all conditions are identical except that of management. But it is this very element of management which is of greatest importance. Estimates of earning capacity based on the earnings of similar businesses must therefore be adjusted on the basis of at least one element which is unknown and which is more important than all others. If the man who is to undertake the management has been successful elsewhere under similar conditions, there is less uncertainty. But even then there may be present some element which renders a seemingly parallel case really unsuitable for comparison.

---

[a] The student of economic theory might correctly presume that this paragraph involves a confusion of the terms—gross earnings, net earnings, interest, and profits. The essential truth of the principle involved is not, however, affected by using these terms in their non-technical meanings without attempting to draw fine distinctions of economic theory. If such distinctions are insisted upon, the statement becomes as follows: Businesses which conform to the conditions above mentioned will yield an amount over and above the cost of raw material, rent, and wages, equivalent to pure interest on the actual capital employed, (the tangible property) increased or decreased by either negative or positive profits according as the manager possesses and exercises lower or higher business ability than the average manager engaged in that business. In other words, the margin remaining to the capitalist-entrepreneur will be a direct function of two independent variables, the quantity of invested capital and the relative—not absolute—entrepreneur ability exercised. This latter includes the risk as one of its elements. As indicated above, granting that the business unit is managed by entrepreneur ability equal to the average that the rest of the industry commands, the net return will be pure interest, and hence, a direct function of the capital investment.

This is particularly true when a successful manager of a small plant assumes control of a much larger plant. Twice in the history of the New England Cotton Yarn Company the men in control of the company made the fatal error of inferring that a man who had been successful in running a single mill could be equally successful in the management of a group of mills. In both cases heavy losses followed, leading to forced reorganizations. A certain enterprise has six factories in the Middle West. To gain efficiency it built, at a cost of ten million dollars, a thoroughly modern mill, the largest of the kind in existence. The directors selected as manager the man who had been the most successful in the operation of the small factories. He made a failure of the large one. Ultimately, its management was given to a man who had shown less than ordinary ability in the management of a small unit. His administration was successful.

Dead Reckoning from Probable Demand.—Closely allied with the use of similar or competitive businesses as the basis for estimating the earnings of a new enterprise is the practice of "dead reckoning" from the probable demand for a product not yet made. This practice is very common in the promotion of new manufacturing businesses in geographical localities where they have not previously existed. For example, the superintendent of a St. Louis shoe factory happens to be visiting in Dallas, Texas, and finds that large quantities of shoes are imported from St. Louis and even from Lynn and Brockton. He seeks to interest local capitalists in the erection of a modern shoe factory, the administration of which he will control. In order to prove to the local bankers that the factory would pay, he will probably obtain more or less reliable estimates of the profits of the St. Louis shoemakers. He will expect the bankers to infer, as a result of these facts, that the industry is, in itself, profitable. He will then gather statistics covering the sale of shoes in the jobbing district of which Dallas is the center and at the same time compute the cost per pair for labor and raw materials at Dallas. In all such cases, no matter how accurate the statistical computations may be, there are many unknown factors which will modify the final outcome, not the least of which will be the superintendent's lack of experience in selling shoes in Texas. A study of what other people are doing in any line of business should not, for a moment, be considered as an accurate indication of what a new man can do under new conditions, however close the parallel may seem.

During 1915 and 1916, while the Great War was raging, many new enterprises were launched in the expectation of reaping inordinate profits. Old, established businesses went into new lines of manufacture, lured by the high prices of war materials. These ventures were all undertaken on the basis of some system of "dead reckoning," supported in most cases by far less accurate knowledge and broad judgment than experienced business men ordinarily command. Practically all of them have proved less profitable than the estimates had promised. Shrapnel proved unexpectedly expensive to make in the small machine shop which had never made it before; copper, zinc, and steel materials rose in price beyond all expectation; labor became scarce, even at higher wages; the subcontractors failed to make delivery; these and countless other unforeseen circumstances vitiated the accuracy of all the estimates upon which the businesses were started. The experience of the General Electric Company is a concrete illustration of this. They took a small amount of "war orders," and although the venture was managed with skill and in a way not to disorganize their business, the profits were less than those realized on their ordinary business. This marked difference between estimates and results, although a consequence of the economic dislocation incident to a great war, illustrates how difficult it is to rely on the dead reckoning of probable profits even when the margin is, to outward appearances, so large as to insure the manufacturer against every contingency.

Past Earnings.—The methods of estimating profits which have been discussed up to this point apply to new enterprises. A majority of promotions today, however, are built up, to some extent at least, out of previously existing plants or enterprises. The promotion in these cases takes the form of a consolidation of already existing plants, or else the entire reconstruction of a small enterprise into a larger one of the same nature. Under such circumstances, the business history of the plants entering into the new company is of real value in estimating future earnings and when available may be used always with more or less confidence. Such estimates involve an appeal to concrete experience, supported by definite figures, and for that reason are especially in favor among accountants and engineers, although regarded with a considerable amount of suspicion by the shrewd business man.

The value of the method of estimating future earnings of a new business by the sum of the previous profits of its component parts must be used with discretion. The fluctuations and irregularities of earnings during previous years, throughout the entire industry, will give convincing evidence of the extent to which the nature of the business permits past experience to be made the basis for the prophecy of the future. During the "trust" promotion periods of 1889 to 1893, and 1897 to 1903, practically every prospectus contained statements of future earnings, based on the previous earnings of the component companies. In the majority of cases the consolidated company failed not only to yield greater profits than the components, but even to earn as much. A study has been made of some thirty-five industrial consolidations, selected at random so as to be representative of industrial consolidations in general.[1] The study indicated that the earnings of the industrial consolidation during the first year, the tenth year, and the average earnings of the first ten years, were all below the earnings of the separate plants before consolidation.

Used with discretion, it is true, the past earnings afford ground for estimating future earnings in industrial consolidations. As more fully discussed in the chapter dealing with the dividend policy of industrials,[2] certain kinds of corporations can anticipate a greater regularity of earnings than others. Those, for instance, which produce a commodity sold directly to the consumer in small quantities, especially if it is sold under an established trade-mark, will always have greater regularity of both gross and net earnings than corporations engaged in the production of large, expensive equipment sold to other manufacturing companies or to public utility enterprises. The earnings of the National Biscuit Company have always been

---

[1] Book IV, Appendix. The following table, prepared some years ago, bears out the results of the more extended study given later.

EARNINGS BEFORE AND AFTER CONSOLIDATION

		Earnings After Consolidations			
	Approximate Annual Earnings of Plants Prior to Consolidation	Time Covered by First Statement in Months	Amount of Earnings Given in First Statements	Annual Rates Represented by First Statements	Percentage of Earnings After Consolidation to Those Before
United States Leather Co.	$4,800,000	12	– $ 980,494	Deficit	0%
National Salt Co.	450,000	8½	429,000	$ 605,800	134%
United States Realty and Construction Co.	3,800,000	9	1,417,686	1,900,000	50%
American Bicycle Co.	4,900,000	10	1,000,000	1,200,000	24%
American Malting Co.	1,300,000	15	502,125	401,700	31%
New England Cotton Yarn Co.	1,106,197	11½	1,041,500	1,086,500	98%
Mount Vernon-Woodberry Cotton Duck Co.	1,100,000	4	609,433	1,828,300	166%
International Cotton Mills Corporation	700,000	12	388,936	388,936	56%
Asphalt Company of America	570,000	12	225,837	225,837	40%
United States Shipbuilding Co.	1,942,522	12	1,078,261	1,078,261	56%
Average Initial Earnings.	....	....	....	....	65%

[2] Book III, Chapter VII.

conspicuously regular, those of the American Car and Foundry Company conspicuously irregular.[3]

According to this general principle, the past earnings of manufacturing establishments producing the cheap necessaries of life and selling them under long-established trade-marks may be used with considerable confidence in estimating future earnings. Baker's Chocolate and Karo Corn Syrup are so widely known that the volume of sales in any one year can be predicted with remarkable accuracy. Yet even those cases in which the industry conforms to the theoretical conditions where prophecy of earnings would seem to be most reliable, are subject to individual uncertainties.[b]

On the other hand, neither the gross sales nor the net earnings of a manufacturer of costly or specialized machinery can be predicted, nor can they be used by the promoter with confidence. Changes in the cost of raw materials and in the rates of interest and of wages, render any particular estimate of the future earnings little better than an intelligent guess. When the business operates in an industry susceptible to sudden and extreme fluctuations in the demand for its product the guess can hardly be considered intelligent.[c]

---

[b] The sales of Karo Syrup fell off in 1921 as compared with starch. At the time of the sudden decline, the managers of the company, relying upon a large collection of statistics at their disposal and long and successful experience in forecasting the demand for their product, had laid their plans on the assumption of an increasing demand for syrup and a decreasing demand for starch. Even when the decline in the sales of syrup had occurred its cause was at most a matter of conjecture.

[c] An extreme case of the difference between the anticipated and the actual in earnings is shown by the early history of consolidation in the leather business. There were two consolidations, one of the upper leather tanneries and one of the sole leather tanneries. One of the promoters of the American Hide and Leather Company, the upper leather consolidation, announced in the trade journals that the "economies of consolidation would not fall below $4,000,000 and that the consolidation would be able to pay from $5,300,000 to $6,900,000 in dividends, or 7 per cent on the preferred and from 8 per cent to 12 per cent on the common stock."[4] The earnings of the consolidated company directly after formation were not published, but from inference it is apparent that the earnings were less than $200,000.[5] The figures covering the United States Leather Company (the

---

[3] For more extended discussion of this principle, including tables, see Book III, Chapters VI and VII.

[4] Boot and Shoe Recorder, May 24, 1899.

[5] Dewing, A. S., Corporate Promotions and Reorganizations, 546 (1914).

The Element of Time.—The value and reliability of past earnings in forecasting the future earnings of a reconstructed or reorganized enterprise, in contrast to a consolidation, depend further on the period of time considered. Ordinarily a bankers' examination into a promotion will reach back into the past history of the elements of the business as far as the records will permit. But these old earnings are not used by the bankers in selling securities, unless they are conspicuously favorable to the new company. In stable industries, in which the economic conditions under which they operate change but slowly, the past earnings during a period of years often furnish a more valuable basis of prediction than the earnings of a single year. This applies particularly to manufacturing businesses selling their products under established and well-known trade-marks. When the earnings for a period of years are used in the bankers' prospectus as evidence for the estimated earnings of the new company they are expressed in terms of averages, but the earnings of the preceding year will be stated separately as well. Unless this is done, suspicion is aroused that the preceding year had fallen below the average. So that, when possible, a more accurate estimate of probable earnings can be obtained by deducing from the past the general direction or drift in which the rise and fall of earnings is tending. This cannot be done by a mere average. Nor should the investor permit himself to be deceived by a mere average when he is given nothing from which to deduce the general drift, or any evidence of the present condition of the business.[d]

---

sole leather consolidation) given in the table in note 1 indicate how difficult the forecasting of earnings in the leather business may be.

[d] Unfortunately, the method of averages is sometimes used to cover up a conspicuous loss or a gradual lessening of earning capacity. During the year before the Consolidated Cotton Duck Corporation was taken over by the International Cotton Mills Corporation it encountered a net manufacturing loss of over $80,000 due partly to the dilapidated condition of its plants and partly to unwarranted speculations in cotton. During the year the net deficit, after fixed charges, amounted to over $500,000; yet, taking into consideration four preceding years of better conditions, it was possible to compute the average earnings after fixed charges as $392,497. Instead of pointing out in his letter to the reorganization syndicate, that the average was by no means indicative of the conditions then prevailing

This discussion of the grounds upon which future earnings of manufacturing companies may be estimated at the time of promotion indicates how much the whole subject is a matter of surmise. Shrewd business men and bankers, during the era of trust promotion and during the early months of the Great War, were quite as apt to be led astray as the inexperienced public investor.

Investors' Prejudices.—In general, two considerations influence promoters and bankers in plotting the financial plan of a new manufacturing company. These two major considerations are the estimated earnings—regarding which, as has been indicated, little can be said with definiteness—and the general traditions and prejudices of the investors to whom the securities are to be sold. This, although of less permanent significance to the new company itself than is the amount of probable earnings, is highly important in the promotion. It is, besides, much less a matter of surmise than the probable earnings. Investment is a matter of fashion. Customs established and prejudices deep-grounded in the minds of investors cannot be easily changed; the promoter must observe them whether he would or not. This is excellently illustrated by the current and accepted custom that bonds should not be used in the financial plan of a manufacturing enterprise.[7] Historically, it is explained by the fact that manufacturers and bankers in New England, where most of our manufacturing industries

---

in the mills, the vice-president stated that, "the net earnings, covering a period of five years to May 1, averaged yearly $400,000 after deducting interest on the Mount Vernon-Woodberry bonds."[6]

Many of the bankers' circulars offering securities in the period immediately after the depression of 1920-1921 stated the earnings on the basis of an average of a period of five years. As this period included the unusual profits of the peak of the war period, the average indicated an excellent earning record as a basis of security for the proposed issue. No mention was ordinarily made of the losses from operation and from the decline in the value of inventions of the preceding year.

[6] Letter of Charles K. Oliver to Augustus P. Loring and Joseph B. Crocker, dated May 25, 1910. The letter made no reference to the earnings of the preceding year.

[7] For relative proportion of capital of industrial concerns obtained through bonds and other interesting statistics see Bliss, James H., Financial and Operating Ratios in Management (1923).

originated and where many of them are even now located, are traditionally opposed to creating a direct funded debt on a manufacturing plant. This old tradition has been strengthened by two very important considerations. Bonds are taxable in several New England states whereas stocks are not,[8] so that stocks can be sold more easily than bonds among many New Englanders who are unwilling to perpetrate tax deceptions. Added to this is the very important fact that banks are more willing to loan money on the general credit of a manufacturing company with liberal net quick assets, if it has no bonded debt on its plant. And while the tradition against bonds is strong chiefly in New England, it is nevertheless true that the financial plan of every manufacturing enterprise must give at least some weight to it.

The principles stated above must be applied differently according to the nature of the manufacturing business for which the promoter or banker is formulating the financial plan. In the case of a specialty manufacturing business and similar speculative enterprises, only one class of stock should be issued. The whole future earning capacity of the enterprise is so doubtful that no investor can be expected to consider a preferred stock any more secure than the common stock, and all will prefer the latter because it will carry greater opportunities for speculative profit. Needless to say, the bonds of such an enterprise will be practically unsalable, except at prohibitive rates of discount. If sold the proceeds would yield the new company no more money than the sale of the same amount of common stock.[e] The rule for the financial plan in

---

[e] This is illustrated by bonds of mining enterprises. While such bonds have been issued, especially in the case of large copper mining companies, they have invariably been made convertible into common stock. The market price of such convertible mining bonds is practically the same as that of the common stock. Indeed, "mining company bond" is misleading, for from the nature of the enterprise, a company which cannot earn a dividend on its stock cannot be made to earn interest on its bonds in case of foreclosure.

---

[8] This was true, until recently, of all the New England states.

such cases is simple—only common stock should be issued against mere prospective profits. And as human nature, especially that of credulous people, draws some connection between the par value on the face of the certificate and the actual value, promoters and bankers usually issue stock in amounts far exceeding what any reasonable expectations of profits would warrant. They can then issue to themselves such large amounts of the stock in return for patent rights and banking services, that their proportion will exceed the amount sold to the public. In this way the public buyers of the stock can be made to take all the primary risk of the new company, with a promise of less than half the possible profit. It is, in truth, from the point of view of the promoters and bankers, a modern instance of "heads you lose, tails I win." The unfortunate feature is that the public not only tolerates the game but seems unwilling even to weigh intelligently the chances.

When the promoters and bankers are dealing with a consolidation of previously existing manufacturing plants, especially when these plants are manufacturing special commodities for the open market, the new enterprise is not to be regarded as merely a gamble. The earnings of the plants before consolidation give at least a semblance of assured earning power, and the tangible value of the property acquired gives the appearance of considerable substantial assets. Preferred stocks may then be introduced into the financial plan with some expectation of selling them as "semi-speculative" investments.

To illustrate concretely the principles involved in this discussion, we will take an actual case of the promotion of a manufacturing concern operating in a small New England city. The exceptional and special features are omitted or modified. There were three mills, each producing the same staple commodity. All possessed valuable trade-marks and a dependable line of customers. The oldest and best-known mill had been allowed to run down, and the managers—the third generation from the founder—had not devoted their individual attention to the business. The two other mills had young and aggressive managements, but their products had neither the reputation nor the quality of the older mill. They were, moreover, hampered by lack of capital. One of the most aggressive of the managers of the newest but smallest mill believed a large business could be established from the union of the three mills. Such a combination would command large credit and an aggressive management, reinforced by old, well-known trade-marks and trade connections.

The promoters procured options on practically all of the stock of the three mills. These options called for $2,000,000 actual money—with the stipulation that certain old stockholders could take preferred stock with common stock bonus in lieu of cash. The new company needed at least $1,000,000 new working capital in addition to that possessed already by the three mills. In addition, about $100,000 was required for certain debts and reorganization expenses, so that the promotion involved the raising of $3,100,000. The earnings of the three mills were as follows (even thousands):

MILL A (WITH VALUABLE TRADE-MARK)

	Previous year	Aver. past 5 years
Gross Sales	$2,500,000	$2,800,000
Total Costs	2,600,000	2,700,000
Net	–$ 100,000	$ 100,000

MILL B

Gross Sales	$1,100,000	$ 950,000
Total Costs	900,000	800,000
Net	$ 200,000	$ 150,000

MILL C

Gross Sales	$1,500,000	$1,300,000
Total Costs	1,200,000	1,100,000
Net	$ 300,000	$ 200,000

From this table it is clear that net earnings the year previous to the consolidation amounted to $400,000 and that the average of the five-year period was $450,000. This had been realized without the new capital which the promoters proposed to furnish. It was believed that the new company could be safely burdened by a contingent charge (preferred stock dividend) of $200,000.

The preferred stock bore 7 per cent dividends, as it was intended to be sold in competition with similar industrial preferred stocks. The total amount of preferred stock issued was set at $2,800,000, an amount which certain bankers agreed to buy. For this stock they paid the company at 90 per cent and sold the stock to the public at par. The bankers received in addition a large allotment of the common stock. The new company realized $2,600,000 of the total of $3,100,000 required from the sale of its preferred stock. The remaining $500,000 was borrowed from banks and the bankers on year notes. It was planned to issue new preferred stock as soon as the new earnings had justified a larger preferred stock dividend charge.

By means of the sale of preferred stocks and notes the promoters secured all the money necessary to start the enterprise. Those in control reserved for themselves the common stock. A third of this went to the individual promoter, a third to the bankers, and the other third was distributed among those of the owners of the old mills who consented to take preferred stock instead of cash as their options designated. The amount of this common stock is of no consequence; it might have been $3 instead of $3,000,000. The latter amount was chosen by the bankers to balance better the issue of preferred stock, thereby implying that there was a considerable equity after the preferred stock. The financial plan took the following form:

	Securities Issued	Charges	Money Realized
Year Notes	$ 500,000	$ 30,000	$ 500,000
Preferred Stock—7%	2,800,000	196,000	2,600,000
Common Stock	3,000,000	....	....
	$6,300,000	$226,000	$3,100,000

The balance sheet of the new company was as follows at the very beginning (condensing details):

Assets		*Liabilities*	
Good-will	$3,200,000	Common Stock	$3,000,000
Plants	1,500,000	Preferred Stock	2,800,000
Inventories	200,000	Year Notes	500,000
Receivables	300,000		
Customers' Notes and Advances	100,000		
Cash	1,000,000		
	$6,300,000		$6,300,000

From this it is clear that the Good-will account was made to balance the common stock and the discount on the preferred stock.

Summary of Principles.—It is possible to summarize the general principles which should govern the structure of the financial plan of a new industrial enterprise. If the enterprise is of the nature of a new business, for which no plausible estimate of earnings can be formed, only common stock should be issued. The amount is immaterial. If some plausible estimate of earnings may be reached on the basis of the previous earnings of the plants or of the nature of the industry, a preferred stock may be issued to be sold to a group of men sometimes called "speculative investors." If preferred stock is issued, in no case should the promised dividend exceed one-half the average earnings of the last five years, if the promotion is a combination or reorganization of previously existing plants; or one-third the prospective earnings, if the promotion is a new enterprise in an established industry. Under no circumstances should the preferred stock charges equal the net earnings of the poorest year experienced by the old companies. No bonus should be issued under any circumstances. The purchase money notes, if absolutely necessary, should not exceed a year in maturity and should be as small in amount as possible. As long as they remain outstanding, they should be regarded as a quick liability, not a funded debt, and should be included in the accounts and notes payable. Deviation from these simple principles controlling the future charges against the new company cannot be considered conservative financial policy. The common stock may be issued to any amount that suits the convenience of the promoters; probably the amount should be large so that a considerable number of shares can be distributed to bankers, investors, lawyers, and the like, and the promoters can still retain a controlling majority.[9]

---

[9] In this connection see also Conyngton, Hugh R., Financing an Enterprise, Vol. II (1921).

CHAPTER VI

THE FINANCIAL PLAN OF THE NEW PUBLIC UTILITY [a]

Local Utility Rates and Earnings.—As in the case of manufacturing enterprises, the financial plan of a gas, electric light, or hydro-electric power company must be based on its prospective earnings. But the prediction of earnings at the time of the promotion of a public utility is ~~more accurate~~ than that of a manufacturing enterprise. Even in the matter of actual capital investment, there is likely to be some correspondence between cost and earning power. The actual cost of constructing a public utility enterprise has been standardized. Moreover, it is unquestionably true that the reduction of the rates of a gas or electric company does not usually reduce the net earnings.[b] This means that within reasonable limits the net earnings are independent of the rates, so that there will exist some more or less standard ratio between the value

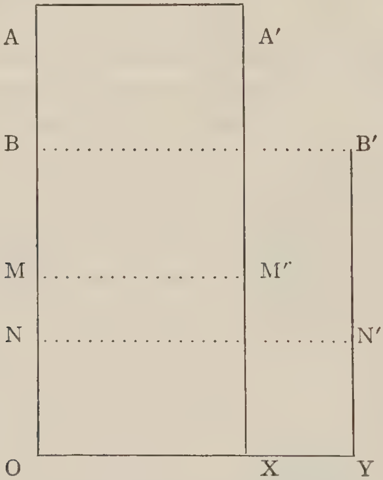
---

[a] The term "public utility" is used here in a somewhat restricted but yet very convenient sense to include water, gas, and electric companies and sometimes—as will be apparent from the context—local street railways. While a railroad or an interurban electric road is a public utility, the whole operation and even the finanical organization is so different from the corresponding features of a water works, electric plant, or hydro-electric development that the term is used here to refer only to the latter group of enterprises. They are characterized by large original capital investment, stable earnings, and a low labor element in the cost of operation.

As used in law, the term "public utility" includes railroads, telephone and telegraph companies, as well as the local utilities. It may also include express, sleeping-car, and even pipe line companies. In certain southern states it has been made to include ice companies and even cotton gins. In investment circles, however, the meaning is restricted to the ordinary local utilities to which it is applied here, except that large interurban traction companies are included by most investment bankers.

[b] There is an economic law of extended application which applies to the production of all commodities sold without competition, but with a more or less uniform elasticity of demand. It is sometimes spoken of as the law of monopoly price. The demand for gas, electricity, and to some extent, water, is elastic; ordinarily the company producing one of these commodities enjoys a local monopoly. As a result of these simple facts the rates charged to consumers are related to the total net earnings of the company in the following manner.

As the rate to the consumer is increased, the net revenue per unit of product sold rises (provided the cost is a simple function of the quantity), but the volume of consumption falls. It is equally obvious that, as the rate to the consumer is decreased, the net revenue per unit sold falls, but the volume of consumption rises. The amount of net revenue, and the quantity of the commodity sold are thus both dependent on the consumer's rate, but changes in the rate do not make corresponding changes in both revenue and volume of sales. (A little change of rate at one point may make a profound change in net revenue together with only a slight change in quantity sold—as when the price of gas, which costs the company to produce and deliver 65 cents per 1,000 feet, is reduced from 75 cents to 70 cents. At another point in the scale, a change in rate may make a great change in the amount of consumption and but a little change in the net revenue per unit sold, as when the price of gas costing 50 cents to produce is lowered from $1.00 per 1,000 feet to 95 cents.) If a reduction in rate brings about not only an increased volume of sales, but also, on the basis of this increased volume, decreased cost of production, the total aggregate net profit on this larger volume with a lower price may exceed that obtained through the sale of the smaller volume at the higher price. This is excellently illustrated by the following diagram.



Let the distance OX represent the amount of consumption of gas at the rate of OA per 1,000 feet. If a lower rate, say OB, is charged, the consumption will be OY. But as the quantity of gas manufactured is increased, the cost of production per thousand feet falls, so that when the amount OX only was produced the cost was OM per thousand feet, whereas when OY was produced the cost fell to ON. Clearly the net profit per thousand feet for OX sales was AM, and for OY sales BN. And, furthermore, BN may be somewhat less than AM. Yet the total net earnings at price OB, represented by the area of the parallelogram BNN′B′, are greater than the total net earnings at price OA represented by the parallelogram AMM′A′.

of the property investment and both the gross earnings and the net earnings, whatever the rates may be.

The courts have recognized the justice of this principle, insisting that property devoted to the public utility shall be protected in earning at least a fair return on the investment.[c] This being the case, a public utility company can secure the protection of the courts against a reduction of its rates only if it can show that the new rates will not permit it to earn, under average but competent management, a fair return on its tangible property. For this reason, if for no other, the amount of property already invested or to be invested in the public utility company is important in estimating earnings.

Tests of Earning Capacity.—The objective tests of the earning capacity of physical property devoted to public utility

---

And in general, the greatest net earnings of any public utility selling a commodity possessing a monopoly in its own field, will be assured by such a rate to the consumer that the area of the parallelogram shall be maximum. The rate at which this value shall be maximum in any given case cannot be predicted. It is a function of the elasticity of the demand which itself varies according to the nature of the commodity and the characteristics of the community served. The elasticity is least for water and greatest for electric power; it is least in a residential and greatest in a manufacturing locality.

[c] The view has been of slow evolution and the precise legal minimum is difficult to infer, because of the lack of unanimity of even the present court decisions. Furthermore, the United States Supreme Court seems to have changed its views. Thus, in the Granger cases decided in 1876 (see Munn v. Illinois, 94 U. S. 113) the court took the view that regulation of the rates to be charged for the use of property employed for a public interest was a power of the legislative branch of the government and the courts could not control such a power. Ten years later in the Railroad Commission cases (see 116 U. S. 307ff.), Chief Justice Waite remarked: "This power to regulate is not a power to destroy and limitation is not the equivalent of confiscation." Finally in 1898, in Smyth v. Ames (169 U. S. 466), in what has come to be a leading case, Justice Harlan states: "We hold, however, that the basis of all calculations as to the reasonableness of rates . . . must be the fair value of the property being used . . . for the convenience of the public." And finally in the now famous Consolidated Gas case (Wilcox v. Consolidated Gas Co., 212 U. S. 19 [1909]) Justice Peckham declared that "taking all the facts into consideration we . . . think complainant is entitled to 6 per cent on the fair value of its property devoted to the public use." An exhaustive and careful study of the problem of fair value from the point of view of court decisions is given in Whitten, Valuation of Public Service Corporations, Chap. II ff; and Bauer, John, Effective Regulation of Public Utilities, Chap. V. An excellent brief summary is to be found in Badger, R. E., Valuation of Industrial Securities, Chaps. II and III (1925).

businesses are to some extent reliable, because here the gross receipts and even the net revenues vary with population served. The average human being, whether situated in Michigan or Massachusetts, will use about the same amount of water, gas, or electricity. Certainly the consumption of any of these utilities may be increased somewhat through a prolonged "new business campaign" or decreased through poor and inattentive service, yet the student of comparative statistics can easily compute in a rough fashion the minimum amounts which the water works or gas plant can earn irrespective of questions of efficiency in management.

The ordinary method of expressing such statistics is by the "per capita" basis, the quotient found by dividing the entire population served into the total figures of earnings or capital. For example, it can be said that a gas works, located in a city of twenty thousand inhabitants or more, and situated in the northern half of the United States, should yield gross income of at least $2.50 per inhabitant, and that the net income after expenses will be at least 60 cents per inhabitant. Similar rough figures may be developed for electric light and private water companies. Extreme cases of good management may very much increase the minimum expectation, as those of Detroit, Denver, and Fort Worth for electricity, and St. Paul, New Haven, and Milwaukee for gas, but the promoter in building and financing his plant will wisely presume that he can obtain only what experience has shown to be minimum earnings. Two of the writer's students have made exhaustive computations of comparative statistics of enterprises of different size all over the United States. Owing to the differences in local conditions and marked variations in accounting practices, the gross averages were not found to be of substantial scientific value. They did show, however, that there existed rough limits, like that just cited, below which even the inefficiently operated corporation did not, under normal conditions, fall, and above which none, except those of most unusual management, could hope to rise. The averages of capitalization were most unsatisfactory, owing to the difficulty of determining the amount of stocks in excess of physical cost. Yet from comparison of a few typical cases it was apparent that gas works, under normal conditions of construction and operation, cost not far from $20 per capita, and electric light plants not far from $25 per capita.[1]

Five Tests for a New Utility.—Setting aside for the moment the commoner form of promotion, that of the acquisition and rehabilitation of small previously existing utilities, the attempt to estimate earnings of an entirely new utility presents great difficulties, but if all phases of the situation are gone over carefully, such an estimate has at least the value of an intelligent guess. In making this guess the promoter and bankers have five main lines of evidence to rely upon: the population, the wealth and industrial activity of the locality, the past history of the region and its future economic possibilities, competition of other already established competitive utilities in the same locality, and lastly the earnings of the same utility in other places analogous in geographical location, in size, and in economic resources.

Population.—It would seem that it would be a very easy matter to determine the population of a given locality in which it is proposed to erect an electric light plant, gas or water works. This is not true. Population is always "estimated" by the promoters and these estimates are invariably too high. Not only are the census figures inflated by unwarranted additions since the last census, but neighboring localities are included notwithstanding the fact that the utility would not, by any stretch of the imagination, reach out to them. Then, too, even if the exact census figures are used, there is a marked difference between mere population and prospective customer population. A man, wife, and thirteen children living in a hovel on the far outskirts of a southern city do not add a bit to the population for the purpose of computing electric light earnings, useful though they may be in determining the Congressional representation of the district. And after correct population figures have been computed, they do not mean the same for all localities. Southern population figures, with a large proportion of negroes, do not represent the same consumption capacity as the same figures in a northern industrial city.

---

[1] For further discussion of the fundamental and "derived" statistics of public utility enterprises, see Dewing, A. S., Public Service Corporation Securities (a lecture), Marshall & Co., Boston (Aug., 1915).

So far as useful estimates can be made, it may be said that a concentrated population means more for the water, gas, and electric utility and less for the street railway than an "open," scattered population. One may assume that under modern living conditions of a large town or small city, the probable number of water consumers will be about one-seventh of the total population, and the number of electric consumers about one-tenth. The proportion of gas consumers will depend on whether it is natural or artificial gas and whether or not there is an electric utility already established. Such estimates are little more than the vaguest approximations. They are valuable, however, as indicating a hypothetical basis from which actual estimates may move in either direction. Furthermore, they have this value—that they furnish a quick method of separating the utterly unmerited "prospects" from those it is worth while to investigate further. For unless the density of population is such that 10 per cent of the available inhabitants, consuming an average amount of electricity charged for at the rates prevalent in the surrounding towns will produce such a gross revenue as will justify an engineer in assuming that the net revenue resulting is equal to at least 12½ per cent of the estimated cost of construction, the proposition deserves no further consideration.

The matter of the relative concentration of population deserves more than passing comment. Scattered farmers in outlying rural districts are of no consequence to a gas or electric company, although they are to the street railway. Even when an electric transmission line passes through an agricultural locality, it does not pay to "step down," the voltage to serve the small farmers. Even though the transmission lines are no higher than 6,600 volts, it will not pay (in the writer's opinion) to cut into the line unless there are at least five farmers within reach of a third of a mile of secondary, and these five have a prospective average annual gross consumption of $25 apiece, or $125 gross to the single transformer. Aside from the capital invested in serving scattered rural population, the cost of maintenance, of trouble-hunting, of collections, etc., is relatively higher than in towns. Not the least of the objections to rural services is the greater danger from lightning to transmission lines having frequent transformer stations placed upon them. All this illustrates how unwise and misleading it is to include surrounding rural population in "population served" figures.

Wealth.—The wealth and industrial prosperity of the general region to be served by the prospective utility are of great consequence. They are ascertained by a variety of tests: bank deposits and bank clearings, estimated total pay-rolls of all the industries, post office receipts, estimated value of manufactured merchandise shipped away, general prosperity of the small shopkeeper. All these elements must be checked against each other. One alone may be misleading. In a certain case favorable judgment was passed on an electric light prospect in an Ohio town because of the remarkably large bank deposits. The company failed to earn the anticipated returns. The large bank deposits were due to the great wealth of farmers in the outlying rural district, but this wealth was of little help to the struggling electric utility.

In addition the wealth-saving capacity and thrift of the inhabitants count for much. While the United States was engaged in the Great War the subscriptions to Liberty Loans and War Savings Stamps afforded a good index of economic strength and these records have considerable permanent value. One should note the ways in which people spend their money and the general appearance of the homes. These things can be told only from a personal inspection of the region by the banker himself or his trusted representative. In such a personal investigation, made by spending days or weeks in the locality, the representative of the banker will study the economic, social, and moral character of the inhabitants. He will note the rate of new house building and the proportion of the new building that is being done for owner-occupants; the ease or difficulty of renting houses; the credit ratings of the local merchants and the character of their stocks of goods; the character of the schools and the proportion of taxes devoted to education; the contributions of the locality to churches and charities; the general appearance and the moral conditions of the "slums"; the presence of graft and corruption in public life and the statistics of crime and vice—these and many other factors must be carefully studied to supply evidence in determining the prosaic question: Will an electric light company pay?

Needless to say a large manufacturing industry very much improves the economic stability of the region; but in a "single industry" town, the prosperity fluctuates too much with the prosperity of the industry. A group of small, diversified manufacturing industries employing highly skilled men affords the best possible field for the local utility. Two cities, widely separated geographically, illustrate this—Canton, Ohio, and Lynn, Massachusetts. In both the industries are diversified and the workers receive high wages for intelligent, skilled labor. In both cities the local utilities have been remarkably successful.

Generally speaking, the nearer the industries are to the basic process of manufacture—in the sense that the furnace man is basic to the steel-maker, and the steel-maker to the bridge-builder—the stronger will be the economic stability of the locality. If the industries are directly connected with some monopolistic source of raw material, as Duluth-Superior is allied with the Lake Superior iron mines, the prosperity of the town must be judged in terms of the prosperity of its fundamental industry. Much stress must be laid on the fact that the prosperity of the local utility rises and falls with the general economic welfare of the locality it serves.

3

Past and Future of Locality.—The past history of the region and its future possibilities are matters of great moment. The ablest public utility operators are guided more by the past and probabilities of the future in determining whether a new utility will pay, than they are by the immediate conditions before them. The past history of the region is important in determining whether the locality is on the up grade or the down grade, economically, morally, and socially.

Many localities, especially in New England and the Middle Western states are "going to seed"; not only are the industries moving away or dwindling in importance, but the best of the young blood is emigrating to other localities. The proportion of "old folk" and degenerates increases; people wear a kind of forlorn and resigned look; they slouch along and have plenty of time to gossip. Frequently numerous unpainted factories or mills with broken windows frown from side streets or stand sentinel over the town, "down the railway track a bit." The railroad station wears a sleepy appearance and the main street is dirty, unwholesome looking and deserted. A new public utility would not pay in such a place.

The reverse of this picture may be presented by a locality with no history whatever. The people talk about the new industries coming; a local "chamber of commerce," or publicity committee, or even an aspiring real estate agent pictures the wonderful prosperity in store for the town. Such optimism of the inhabitants must, however, be checked up by objective and colorless facts. If the town is the junction point of several railroads, if it enjoys favorable freight rates, if its manufacturers are building additions to their plants—in short, if the whole outlook of the town is forward—then a public utility is likely to be increasingly profitable.

Competition, Actual and Potential.—The competition of other utilities in the same locality is of importance only in considering the establishment of a gas works where an electric light plant already exists, or an electric light plant in a town already served by gas. Such competition between utilities was considered a serious matter at one time when the chief use of both gas and electricity was for lighting. Bankers and investors are now coming to recognize the essentially distinct spheres of usefulness of gas and electricity and the competition is not regarded as of great moment. Of course, if the established and strongly entrenched electric light company offers a low heating rate to its consumers, there will be little inducement to build a gas works, but ordinarily gas is better and more economical for heating and electricity for lighting and power purposes.

When it is a question of determining the effect of the competition of the old utility on the new utility, it is necessary to compute with considerable care the customers who are certain to take the new service. Unless this number of customers is sufficient to give a fair return to the estimated investment, the project should not be undertaken. The growth of a competitive utility is slow; new competitive business is secured at great cost and the more scattered distribution of the services results in an abnormally high relative cost of operation.

Comparative Earnings.—The actual earnings of the same kind of utility in other localities of the same character furnish one of the best indications of future earnings. Human nature is much the same everywhere in its fundamental economic needs and the manner of satisfying them. True, a vigorous, "new business campaign" will bring the consumption of electricity or gas above the average—though it will not materially affect the consumption of water. If the management is derelict in its obligation to the public, the earnings will be less than the average. But localities of about the same size with equivalent economic resources will present about the same demand for water, gas, electricity, and even local street railway service. In such cases the actual consumption statistics and earnings of other localities need only to be modified to the extent that the locality under consideration varies from the normal average. Such modifications are made by the skilled utility operator from his own experience. In every case the banker or his responsible statistician should check the figures so that the final comparative estimates represent the composite judgment of several men qualified by direct experience in the comparison of utility statistics. Such comparisons are based, however, much more on a kind of shrewd insight developed through contact with many towns than on mere figures. When carefully made by men of real insight, such estimates of comparative earnings are remarkably accurate.

Estimated Earnings—Reorganized Utility.—The preceding paragraphs refer particularly to the estimation of earnings for a utility project which is an entirely new construction. There are now, however, far fewer promotions of this kind than promotions representing the remodeling, reorganization, or combination and extension of previously existing small utilities. In these instances, the outside banker employs all the tests and checks outlined above, and has in addition a very reliable test in the actual earnings in previous years of the utility or utilities which he proposes to reorganize. Ordinarily, a small electric, gas, or water plant is built by local business men. These men are actuated partly by hope of profit and partly by civic pride, but they seldom have much technical skill at their command and practically never understand the intricacy of modern public utility problems. Their enterprise prospers by reason of the mere growth of the community. But their management is inefficient and backward. They have no capital for extensions and improvements. The same conditions, in all probability, prevail in the adjoining cities and towns. Presently an electrical, gas or hydraulic engineer with banking connections, or a banker with an engineer as an associate, buys the local enterprise, and those of the adjoining communities with the purpose of reconstructing them. A new corporation is formed to assume the ownership of the franchises and the physical property of the old operating companies. The necessary capital for the extensions and reconstructions is obtained through the sale of securities of the new corporation. And the whole undertaking comes to the investing public as a new promotion.

Investors are not apt to stigmatize an enterprise as a "promotion project" if it can show a record of past earnings. In order, therefore, that the undertaking shall appear in its best light the bankers' prospectuses throw into strong relief a statement of the past earnings of the component companies and an estimate of future earnings. Sometimes this estimate, by a judicious use of implications, tends to mislead the prospective investor into the supposition that the estimate has a substantial basis in accomplished fact. This species of indirect deceit is growing less common. Highly reputable bankers are very careful to distinguish in their published circulars between the actual and the probable.

The estimates of earnings of public utilities on the basis of past gross receipt and operating expenses, when carefully made by engineers experienced in the public utility business, are often very accurate. They are usually computed on the assumption that certain expenditures on the central station plant will reduce the operating ratio,[d] by at least a definite percentage, and that new transmission lines with the impetus of a "new business campaign" will increase the gross earnings by another percentage. These percentages are not mere guesses. They

---

[d] The operating ratio is the ratio of the annual cost of operation to the total operating revenue, reduced to a percentage form, as follows:

$$\frac{\text{Operating Expenses}}{\text{Total Revenue}} \times 100$$

Practice differs as to whether taxes should be included in operating expenses. The writer's personal opinion is that they should be; they are a necessary part of operation and an inflexible element in cost. Furthermore, both financial writers and people generally are coming to infer that the proprietary interests are entitled to the balance of revenue after the payment of operating expenses. If this is presumed, clearly taxes must be included as an element in the operating expenses to avoid hopeless confusion.

are based on the engineer's experience in the reconstruction of other similar properties after a complete study of local conditions. On the whole probably, when carefully made, such estimates of future earnings are the most reliable offered to the investor in any form of promotion.[e] Great care must be

---

[e] A typical case, chosen at random and by no means exceptional, was the promotion of the New York Gas and Electric Company. This case was neither so large as to make comparisons with others difficult, nor so small as to be fraught with special conditions. The company was formed by the union of eight small electric light and gas companies operating in the region between Syracuse and Rochester, New York. The engineers believed that they could bring the separate plants under one organization, build transmission lines, thereby doing away with several generating stations, and otherwise introduce modern methods of operation. To make these improvements it was necessary to sell bonds.

Accountants, Messrs. Haskins and Sells, were called upon to audit the earnings before the consolidation. Reports of two engineering firms, Messrs. J. G. White and Company and W. S. Barstow and Company, were made on the properties, and the methods of accounting were prescribed in detail by the Public Service Commission of the Second District of New York. The estimate of the gross receipts for the first year following the consolidation was within 4 per cent of the actual result, and the actual total operating expenses varied less than 2 per cent from the estimates. Accurate as it may seem, the estimate was based merely on the presumption, founded in past experience, that such a consolidation of lighting properties would probably obtain a 10 per cent increase in gross receipts through improved methods of salesmanship. Accordingly, the estimate of gross earnings was made 110 per cent of the previous earnings. Furthermore, experience has shown that the operating ratio, aside from taxes and rentals, could be reduced approximately 10 per cent through consolidation. That is, the previous direct operating expenses of $168,563, or 74.3 per cent of gross, could be reduced to 64 per cent by means of improved methods.

CENTRAL NEW YORK GAS AND ELECTRIC COMPANY

	Sum of the Actual Earnings of Separate Plants Prior to Consolidation (1910)	Estimate of J. G. White & Co., Inc., for First Year after Consolidation	Actual Results for First Year after Consolidation	Actual Results for Second Year	Actual Results for Third Year
Gross Earnings...........	$226,826	$249,500	$258,969	$290,003	$309,243
Operating Expenses, including Taxes and Rentals...	182,594	177,125	175,288	196,080	198,116
Net Earnings.........	$ 44,232	$ 72,375	$ 83,681	$ 93,923	$111,127

On the other hand, it must not be presumed that this degree of accuracy is always possible. Unforeseen circumstances may intervene to render an estimate, no matter how carefully made, of little value. A steam electric light promotion was formed in 1915. Its component companies were then paying less than $1.50 a ton for coal, and the promoter used this figure in estimating the operating expenses and net earnings for 1916. The coal shortage of the spring of 1916 trebled the coal costs for the first six months —at one time the cost was $5.40. In spite of the fact that the new business and gross earnings far exceeded the promoter's estimates, the net earnings exercised, however, that estimates be not overstated. A reputation for conservatism in his estimates is of great value to any promoter who seeks aid from bankers.

Estimated and Actual Earnings.—The great importance of this general subject of the accuracy with which future earnings of public utilities may be estimated led to a comparison, among a random selection of utilities, of the estimated and the actual.[2] Some 64 separate utilities were studied, of which 27 separate cases afforded sufficient data. Of these cases those relating to the larger companies were clearly more accurate than those of the smaller companies. This was particularly noticeable in the estimates of two large companies, the Southern California Edison Company and the Public Service Company of Northern Illinois. Dividing these companies into classes according to their size the following table is shown:

AVERAGE ERROR IN ESTIMATING

(Per cent)

Size of Company Gross Income	Gross Op. Rev.	Op. Exp. and Taxes	Net Income	Op. Ratio
Over $1,000,000	9.0%	8.4%	6.6%	6.3%
$500,000 to $1,000,000	14.7	25.4	19.9	9.5
$200,000 to $500,000	21.2	33.6	14.6	14.8
$100,000 to $200,000	23.6	40.0	41.2	14.9

Unfortunately the number of cases are too few to be more than suggestive. A detailed study of the comparisons is illuminating and some of the results are quite remarkable in showing the skill of practical utility operators in estimating net earnings. For example, the estimate of only one of the six large companies was more than 5 per cent in error; and the

---

were conspicuously less than his estimate. H. M. Byllesby and Company's estimate of the earnings of their Northern Idaho and Montana Power Company, on the basis of which reputable bankers sold securities, was very far from the results actually achieved. Excuses were offered in the subsequent reports to stockholders, but the fact remained that the expectations of the engineers were not realized.

Of course, no such accuracy as that described above can apply with entirely new construction propositions. The estimate, both of cost and future earnings, of hydro-electric companies are above all others prone to be wrong. This subject will be discussed further.

[2] Sherman, J. M., The Reliability of Engineers' Estimates of Future Earnings of Public Utility Companies, Harvard Graduate School of Business Administration (1925).

estimates of the operating ratio of three of the six were within 2 per cent of accuracy. For all companies—random selection of 27 cases, all with gross earnings over $100,000—the ratio of the estimated earnings to the actually realized earnings, expressed in percentages, was as follows: For gross operating revenue, 94.0; for operating expenses including taxes, 100.2; for net income, 107.9; and for the operating ratio, 94.3.[f]

Money Investment Required.—Of great importance in determining the form of the financial plan, only secondary, indeed, to that of the estimate of earnings, is the money investment required to acquire and develop the property. As stated before, the majority of gas and electric light companies are built by local business men and their promotion follows no ordinary lines. They are purely local enterprises, in management and ownership. It is only when these local enterprises are acquired by outside interests and the capital for them shifts into regular investment channels, that they assume importance from the point of view of general finance. These local, unprogressive, and quite often unprofitable enterprises must be paid for by bankers who undertake the financing of the promotion. Fixing the purchase price is one of the objects of the negotiations undertaken by the promoters. Once this price is agreed upon, it becomes an ever-present element in determining the character and the amount of the new securities to be issued.

In spite of the inexactitude and differences of method in the physical valuation of water, gas, and electric properties, there is surprising uniformity in the judgment of values made by buyers of public utility properties. Their price is not determined by physical valuation, but by the current earnings and the "possibilities," as the future opportunities for development are called.

---

[f] See table on following page.

f (*Cont'd*)

RATIOS OF ESTIMATES TO ACTUAL EARNINGS

NAME OF COMPANY	Year of Estimate	Actual Gross Income (000)	OPERATING RATIO			RATIO ESTIMATE TO ACTUAL			
			Estimate	Actual	Year Previous	Gross Op. Revenue	Op. Exp. and Taxes	Net Income	Operating Ratio
CLASS A—GROSS INCOME OVER $1,000,000 PER ANNUM:									
1. Southern Calif. Edison Co.	1910	3384	49.5	50.6	51.3	99.0	96.0	105.0	98.0
2. Pub. Ser. Co. of Northern Ill.	1912	4230	61.0	56.0	64.7*	99.0	97.0	102.0	98.0
3. Louisville Gas & Elec. Co.	1914	2229	52.0	52.3	52.8	110.0	109.0	111.0	99.0
4. Mountain States Power Co.	1923	2049	....	68.8	70.5	....	....	101.3	....
5. Central Illinois Pub. Ser. Co.	1913	1700	60.0	66.2	68.6	84.0	76.0	100.0	90.5
6. Great Fall Power Co.	1911	1209	19.3	16.5	19.3	83.0	97.0	80.0	117.0
Average	....	....	....	....	....	93.0	95.0	99.7	100.5
CLASS B—GROSS INCOME $500,000 TO $1,000,000 PER ANNUM:									
1. Indiana Power Co.	1922	913	51.8	46.8	51.8	136.5	151.0	124.0	111.0
2. Arkansas Light & Power Co.	1919	878	70.0	77.3	59.8	114.0	103.1	150.8	90.6
3. Penn. Central Light & Power Co.	1913	764	53.0	57.7	56.6	99.5	91.4	110.6	92.0
4. Illinois Northern Util. Co.	1913	761	52.9	65.5	59.5	80.2	64.7	109.2	89.0
5. Edison Elec. Co. Los Angeles	1903	728	47.3‡	51.1†	47.1‡	(65.2)§	....	....	....
6. Cohoes Power & Light Co.	1919	663	....	41.2	48.2	....	....	96.2	....
7. Eastern Penn. Power Co.	1912	561	55.3	67.8	63.5	87.3	71.2	121.2	92.0
Average	....	....	....	....	....	103.5	96.5	118.7	94.9
CLASS C—GROSS INCOME $200,000 TO $500,000 PER ANNUM:									
1. Great Lakes Power Co., Ltd.	1917	492	28.9	48.0	44.3	91.6	42.1	125.4	60.3
2. Eastern Penn. Power Co.	1911	483	45.6	63.8	61.6	59.0	42.2	88.4	71.3
3. Fort Worth Pow. & Lt. Co.	1912	463	57.4	56.0	63.4	119.0	120.2	115.2	102.6
4. Penn. Central Light & Power Co.	1910	365	....	52.4	58.3	....	....	116.0	....
5. Arkansas Light & Power Co.	1916	331	53.0	59.1	55.0	79.3	71.2	91.2	89.9
6. Cont. Gas & Elec. Co.	1913	321	....	57.6	58.3	....	....	91.6	....
7. Iowa Electric Co.	1917	308	....	66.5	65.0	....	....	100.4	....
8. Central N. Y. Gas & Elec. Co.	1912	259	71.0	67.6	80.3	96.0	98.0	86.4	105.0
9. Massillon Elec. & Gas Co.	1916	242	54.6	56.0	50.0	66.1	64.4	68.1	97.5
Average	....	....	....	....	....	85.1	73.1	98.1	87.7
CLASS D—GROSS INCOME $100,000 TO $200,000 PER ANNUM:									
1. Southwestern Cities Elec. Co.	1914	177	51.8	50.0	53.3	139.5	145.0	134.0	103.7
2. Central Illinois Utilities Co.	1913	165	47.0	77.0	55.7	86.5	188.5	200.1	61.0
3. Massillon Elec. & Gas Co.	1915	162	57.6	50.0	66.8	80.0	92.3	67.8	115.2
4. Mineral Point Pub. Ser. Co.	1915	139	57.0	56.5	....	80.5	81.1	79.3	101.9
5. Olean El. Lt. & Power Co.	1915	120	....	65.0	68.6	....	....	119.0	....
Average	....	....	....	....	....	96.6	127.0	122.0	95.4

* Year ending September 30, 1911. † Year ending December 31. ‡ Year ending September 30. § Years of estimate and actual are different periods.

Formula of "Ten Times Net."—If the territory is developed to such an extent that the company has about as many customers as the population would warrant, and the equipment is in fair condition, neither new nor so antiquated as to be useless, one may say roughly that the price promoters are willing to pay is ten times the net earnings.[g] That is, given a local company operating under average conditions, a typical case, outside bankers and engineers will be willing to purchase the property for an amount equal approximately to ten times its normal earning capacity. This permits them to issue and sell enough first mortgage bonds and notes and stocks to pay for the property and the initial improvements. The manner of arranging the financial plan to meet this end will be discussed later.

This figure is true for the "type case" of electric lighting and gas companies. Water companies, because of the greater capital investment, the inelasticity of demand and the greater stability of earnings, are usually valued for purchase at somewhat higher figures, perhaps twelve times the net earnings or on an 8 per cent basis. Hydro-electric properties, being nearer manufacturing enterprises in having more fluctuating earnings, are usually valued at a little less, perhaps eight times the net earnings or on about a 12½ per cent basis. Furthermore, during periods of marked activity in the public utility business these estimates of value would be changed somewhat. In 1924 and 1925 there was great demand among utility operators for properties, one operator bidding against another in many cases in a wild scramble to acquire properties without a due regard to fundamental values. This condition continued into 1926 in an even more marked form, so that public utility properties were rapidly turned over from one operator to another at constantly increasing prices, much as town lots during a real estate boom. This wild scramble for properties was made more intense by the fact that operation of holding companies, desiring to secure a wide geographical distribution for their separate companies, invaded new areas. So that small properties of relatively little importance in themselves assumed, suddenly, great strategic importance by reason of their possible inclusion within different spheres of influence.

---

[g] This is spoken of as a "10 per cent basis," meaning that the capital value is such that the earnings are 10 per cent of it.

The relative size of the property, independent of its strategic importance also influences its market price. This is because of the keen competition among the larger operators who find it increasingly difficult to find public utility properties that can be bought at any price. Further, bankers are more willing to undertake the obligation of financing large properties than small ones owing to the greater ease of selling the bonds. Operators are therefore assured of getting their capital at a lower cost.

Economic Possibilities of Region.—The circumstance that tends most to modify this rough formula of "ten times net," is not so much the replacement value of the property as the possibility of the future development of the region served by the utility. This is far and away the most important element in forming a judgment of the cash purchase price of a public utility property. An electric or gas company is valuable to the extent that it may produce earnings in years to come. This is a question of the future prosperity of the inhabitants of the town or city it serves, and only incidentally of its own physical property. Electric generators may be easily replaced, departing inhabitants cannot.

This important matter of the potential economic possibilities of the region covered by the utility is the factor of the situation least satisfactorily described and appraised by the average engineer's report. Very often the report is little else than an inventory of the physical property of the company, with no suggestions as to the serviceability of this property for the company's present and future needs. Such a report has no value in helping banker or investor to form a true estimate of the potential earning capacity of the property.

The defect is inherent in the manner of preparing these reports. The engineer's office sends to the locality one or two young men who have been trained technically, but who are totally unable to judge whether the locality is progressing or retrogressing.

Generally speaking, the number of unoccupied houses in the town is a far better index of the value of a lighting property than the number of transformers. There is an instance in which eastern operators paid approximately $250,000 for a western Pennsylvania lighting company having physical property worth, by any stretch of the imagination, not more than $100,000. The net earnings after depreciation were only $12,500. Yet no houses could be rented, new industries were pouring into the city and the old company had only one service to approximately forty inhabitants. The lighting company was a bargain. Its privilege of doing business was of itself worth the price paid, had the company's plant been worthless. After seven years of improved operation, with the expenditure of very little new capital beyond the investment of earnings, the net earnings had increased to $106,000 and the property was sold for over a million dollars. On the other hand, another lighting company operating in a town from which families were constantly moving, where barns of the outlying farm districts went unpainted, might have $250,000 worth of physical property, and yet not be worth $100,000.

Within recent years both bankers and promoters have been forced to recognize that the value, for the purpose of estimating future earnings, of a public utility is no greater than that allowed by rate-making commissions. The leading Supreme Court case of the Consolidated Gas Company of New York,[3] has made it clear that utilities will be protected from low rate-schedules only to the extent of a fair return on their invested property. They must not capitalize a valuable franchise or "future possibilities."

A recent report of the Committee on Public Service Corporations of the Investment Bankers Association, relative to a law permitting savings banks to invest in public utility bonds, contains concrete suggestions. The effort was made to show the relationship between property value and earnings crystallized into figures that give the current thought of public utility commissions.[4] This committee states that "there is abundant evidence that for the purpose of rate-making, either for railroads or public utilities, a value is seldom recognized (by regulating commissions) which exceeds an amount equivalent to five times gross earnings . . . that is to say, an investment of $5 based on $1 gross earnings." The report goes on to say that the ratio is often four to one. Furthermore, "where commissions have been called upon to determine the rate of return on the investment, they have usually reached the conclusion that 6 to 8 per centum was a reasonable return on the amount of investment." Ordinarily the operating expenses absorb 60 per cent of the gross earnings, so that the remaining 40 per cent, representing the net earnings, would represent about 8 per cent of the commission's valuation. This is the same as saying that commissions would assume that a public utility property should earn about one-twelfth of its value each year, or, conversely it would be worth about twelve times its net earnings.[5] This relationship between net earnings and value of the property is quite consonant with that adopted by utility operators and bankers in their practical judgments.

---

[3] See note c.

Form of Financial Plan.—Granting that the local utility or group of utilities will cost the promoter-engineer ten times the net earnings of the previous year, and that his estimate of future earnings is sufficiently sound to interest his banker in the enterprise, it becomes necessary for the two together to formulate a financial plan. A new corporation will take over the physical property, franchises, and privileges of the old utilities. Two limiting considerations will determine the proportion of bonds and stocks and their absolute amounts, the ease with which the banker can sell the securities to the public, and the actual amount of money that must be raised. The banker is confronted with the stern necessity of selling the securities in competition with those of other bankers. They must be attractive to the investors, else he cannot sell them.

---

[4] Report by John E. Oldham, chairman, reprinted at length 1916 U. S. Investor, 1925 (October 14, 1916). The report deserves study as it was prepared after careful thought by certain investment bankers familiar with the financial problems of local public utilities.

[5] See Heilman, R. E., The Development by Commissions of the Principles of Public Utility Capitalization, 23 Jour. Pol. Econ. 888 (November, 1915); also Ignatius, M. B., The Financing of Public Service Corporations, Part IV (1918). Text contains many citations from actual cases. Erickson, Halford, Regulations of Public Utilities (1911).

The first matter to be considered is the kind of securities, the second their relative and absolute amounts. Owing to the fact that the earnings of public utility enterprises are on the whole remarkably constant, neither abnormally high in times of business "boom" nor abnormally low in times of business depression,[h] there is no reason to fear that a reasonable load of fixed charges will precipitate bankruptcy. It is, therefore, expedient to issue a certain amount of bonds, because a part of the money may be secured more cheaply through bonds than through the sale of stocks alone. In accordance with the investment habits and prejudices of the period immediately before the Great War—which we may consider normal—a high-grade first mortgage public utility bond would be bought by the investor at a price to yield him between 5 and 5½ per cent, whereas he would not buy a high-grade preferred stock of a new company on less than a 6½ or 7 per cent investment return.

Bonds.—In the period following the Great War high-grade first mortgage public utility bonds commanded a much higher price, at the time of issue—in fact, the average price

---

[h] Public utilities differ among themselves in the extent to which their earnings are affected by general business conditions. The relative constancy is inverse to the elasticity of the demand for the commodity supplied. Water company earnings are least fluctuating, then gas, then steam electric, and finally hydro-electric developments with a considerable power load. If street and interurban electric railways are regarded as local public utilities, their earnings fluctuate most with business conditions.[6]

---

[6] For further discussion of the elements affecting fluctuations in public utility earnings, see Dewing, A. S., Public Service Securities, 11-17.

for the eight years from 1918 to 1926 was such as to yield the investor over 6½ per cent.[i]

If bonds are to be issued, the amount must be small; the interest upon them must be only a moderate proportion of the past earnings or of the prospective future earnings. While there is no invariable principle, the conservative banker, in protecting his customers, will insist that the interest charges on the bonds proposed by the financial plan shall be not more than one-half the amount of the net earnings of the previous year. Such bonds he can sell without much difficulty, provided the general bond market is favorable, and provided he can conscientiously recommend them to conservative investors. Even irrespective of the ease with which the banker can sell the bonds, it would be distinctly inexpedient for the corporation to assume a fixed bond interest charge of more than half its assured earning capacity. This principle of issuing bonds to an amount such that the interest charges shall be only half the earnings is distinctly wise and should form a basal principle of public utility finance. Although not universally observed it has the sanction of the ablest and most successful promoters, bankers, and operators in the field.

Granting that the old companies were bought on a "10 per cent basis" it is clear that, were it possible for the company

---

[i] A study was undertaken of the issuing prices, expressed in yields, of different types of public utility bonds, during the period since the Great War.[7] The study was based on the prices paid by the ultimate investor. It included 68 first mortgage or prior lien bonds, 36 debenture, and 52 collateral trust bonds. The bonds used in the compilation included both old as well as new issues, so that the averages indicated show a somewhat lower yield—and therefore a somewhat higher issuing price—than if new or promotion issues alone were considered in the study.

Year	Prior Liens	Debentures	Collateral Trust
1918	6.55	7.39	7.08
1919	6.02	6.57	6.63
1920	7.31	7.40	7.48
1921	7.56	7.85	7.63
1922	6.06	6.71	6.58
1923	5.92	6.52	6.27
1924	6.35	6.65	6.25
1925	5.56	6.22	5.97
Average	6.42	6.91	6.74

---

[7] Collett, J. P., Issuing Yields of Industrial Public Utility and Railroad Bonds, Harvard Graduate School of Business Administration (1926).

to realize the par value for the bonds, enough money would be supplied to pay exactly for the old properties. But the par value cannot be realized; the banker must have a profit for the sale of the bonds and the new company must be provided with money to pay for the improvements and extensions necessary to rehabilitate the old plants. Other securities, inferior in character, must be sold to supply the additional money. These will be either notes or shares of preferred stock.

Notes.—As a general rule, notes should not be issued at the time of a public utility promotion. They must be refunded into bonds or stocks within a short time. Unlike a manufacturing business, the assets of a public utility are almost entirely fixed and not readily available for meeting a rapidly maturing debt. In certain exceptional cases, however, when the company has been so ill managed during the preceding year that the past earnings give little indication of what can be accomplished by the aid of efficient engineers, it may be wise to issue two- or three-year notes; in that case no preferred stock need be sold until the net earnings shall have so improved as to enable the company to sell its stock for a fair price. Such note issues are, in effect, merely temporary financial expedients. As such they are, of course, dangerous and should be employed only when there is a reasonable certainty that the net earnings will be increased immediately by leaps and bounds. Otherwise the second security, after the bonds, should be a preferred stock. As few newly promoted companies can be assumed to develop immediately greatly increased earning capacity, the issue of preferred stock should be the almost universal rule, and the issue of notes the rare exception.

Stock, Preferred and Common.—The preferred stock of a new public utility, that has been preceded by a senior issue of bonds, cannot be regarded as a sound investment. At best it is a kind of "conservative speculation." It would appeal only to that class of investors who, either from ignorance or well-reasoned judgment—it is often difficult to say which—are tempted to sacrifice safety for the promise of large returns. The dividend must be made high to attract this class. Custom fixed it before the Great War at either 6 or 7 per cent and in the period after the Great War at from 7 to 8 per cent. The specific price and yield at which an issue was offered to the public depended upon the standing of the interests behind it or the geographical location of the public utility company.[j]

The financial plan must conform to this custom. To sell the preferred shares to even the speculative investor, the margin available from which to pay the dividends must be at least twice the dividend requirements. In brief, preferred stock, following a prior issue of bonds, must be limited to such an amount that the promised dividend upon it shall be no more than half the margin of net earnings left after the deduction of the bond interest. The issue of preferred stock beyond this amount is not sound finance. But if the old properties entering into the new company have been acquired at

---

[j] Roughly speaking, in the period just preceding the Great War it should have been 7 per cent if the company was west of Ohio and south of Maryland. It might have been 6 per cent if the company was located in Ohio, the Middle Atlantic States, Vermont or Maine. The preferred stock could have carried, in exceptional cases, 5 per cent, if the company was located in one of the southern New England states, or even 4 per cent if in Eastern Massachusetts. One of the vagaries of the investor's psychology is the enchantment of nearness. And as a large part of the free capital waiting for investment comes from the Middle Atlantic and New England States, the nearer home the enterprise is, the smaller may be the promised return. The above estimates do not apply to the preferred shares of holding companies.

After the Great War these estimates no longer hold true. The enchantment of nearness has lost its charm, especially as New England investors are coming to realize that their small local utilities—"softened" by years of low cost capital—are probably less well managed than the utilities in any other section of the country, except perhaps in those sections where the utilities are still municipally owned by the local inhabitants.

In the period in question a new utility preferred stock, no matter where located, would probably be issued carrying either a 7 or an 8 per cent dividend. Even the New Hampshire Power Company preferred stock—the stock of a utility operating in long settled communities—carried an 8 per cent dividend. The failure on the part of the Central Maine Power Company to distribute preferred stock to its customers at a price greater than its market value,[8] indicates that the presumption that a New England utility stock can be sold locally at a price out of line with the general market is no longer true.

---

[8] Book IV, Chapter X, page 876.

reasonable prices, the sale of this amount of preferred stock will be ample to absorb the discount on the bonds and supply the company with money for the improvements of the first year.

As in the case of manufacturing companies, there is no principle governing the issue of common stock, other than that the financial plan should appear well balanced. Most or all of such stock passes directly to the promoters, underwriters, and bankers, as the profit of the promotion. The total amount, therefore, is merely an arbitrary matter of bookkeeping having but slight influence on the future success of the company.

Summarizing these considerations, it may be said that the financial plan of a public utility enterprise should embrace bonds, preferred stock, and common stock. The bonds should be limited in amount, so that their interest charges are no more than one-half the established net earnings. The preferred stock should be issued only to the extent that the dividends upon it absorb less than one-half the surplus remaining after the payment of the bond interest. All other elements of the financial plan are of secondary importance compared with these fundamental principles.

A Typical Case.—Any one of a vast number of public utility promotions might be selected to illustrate this discussion. That of the Fort Worth Power and Light Company is typical. Furthermore, the restrained letter of the promoters to bankers is worthy of study and can be used to explain the outlines of the promotion.

July 7, 1911

Messrs. Dowd, Jason & Co.,
71 Euclid Ave.,
Cleveland, Ohio.

Gentlemen:

Confirming our conversation, we beg to hand you, herewith, confidential information relating to the proposed Fort Worth Power & Light Company. Said Company is organized under the laws of the State of Texas. It is vested with the electric light properties in the

City of Fort Worth, Texas, formerly belonging to the Fort Worth Light & Power Co., Consumers Light & Heating Co., and the Citizens Railway and Light Co. These three companies, each operating a generating plant, have been supplying the City of Fort Worth, Texas, with electric current for lighting and power purposes. The new company will, therefore, own all of the lighting properties, generating plants, and franchises in Fort Worth.

The combined gross earnings from light and power of these three companies for 1910 and for the first three months of 1911 were as follows:

1910		
January	$37,690	
February	33,726	
March	35,106	
April	33,845	
May	31,318	
June	33,167	
July	31,885	
August	34,272	
September	35,768	
October	39,714	
November	42,558	
December	48,482	$437,531
1911		
January	$46,788	
February	41,033	
March	40,590	$128,411

Increase over January, February, and March, 1910—20%.

This increase indicates gross earnings for year 1911, of $525,037.

In considering the net earnings from these properties, it must be borne in mind that three inefficient and uneconomical power plants have been operated by three separate organizations.

The net earnings for the same months were as follows:

1910		
January	$15,929	
February	13,662	
March	13,991	
April	13,725	
May	10,902	
June	13,429	
July	9,219	
August	11,376	
September	14,353	
October	17,070	
November	20,455	
December	24,200	$178,311

1911		
January	$18,781	
February	18,004	
March	14,832	$ 51,617

Increase over January, February, and March, 1910—15.5%.

A contract has recently been made with the City of Fort Worth for the furnishing of electricity for the pumping of the city's water supply. The ultimate requirements under this contract will aggregate 1,500 horse power in motors operating at 100% load factor 24 hours a day, 365 days in the year. The first motor (135 HP) under this contract is now being installed, but not to exceed one-half of the entire load contracted for can be taken on before the completion of the new power house, although practically the entire load will be available within the next six months. It is estimated that the gross earnings from this contract with the city will amount to $150,000 per year, when all the city wells are electrically equipped.

We are also informed that negotiations are now under way with the City of Fort Worth for current necessary for the operation of 500 additional arc lamps. With the new business in sight it is believed that the lighting properties of Fort Worth will earn gross during the year, July, 1911, to July, 1912, approximately $550,000. Operating but two plants, with but one organization and taking into consideration the increased earnings, our informants state they believe the properties can be operated at 57½% of their gross earnings. This will give estimated net earnings, July, 1911, to July, 1912, $233,750. With three plants with three organizations in the year, 1910, the percentage of operating expenses was but 60%.

In view of the contract with the City of Fort Worth for the furnishing of current to the city for the pumping of its entire water supply; the contract with the city for furnishing of current for its street lighting; the installation of an underground conduit system within the fire limits, a part of which is already completed; the occupation of the only power house site available in the center of distribution system covering the entire city; the favorable franchises owned; where water and transportation facilities are obtainable the complete distribution establishes an intangible value as a going concern, much in excess of the physical or replacement value.

The capitalization of the proposed company has not been finally determined, but the following is being discussed, namely:

	Authorized	Issued
First Mortgage 5% 20-year Gold Bonds	$10,000,000	$1,500,000
7% Cumulative Preferred Stock, redeemable at the option of the company at 115	1,000,000	620,000
Common Stock	2,750,000	2,750,000

Fort Worth is a prosperous and rapidly growing manufacturing and railroad center. There are nearly 300 industries in the city and Fort Worth has recently become one of the most important and active live stock centers in the United States. Its population, according to the 1910 Census, was 73,312, an increase of 174% in the last decade.

If this offering interests you, we shall be very glad to take up the matter of price and deliveries with you.

Very truly yours,

In reviewing this particular promotion it should be added that the constituent properties were acquired on approximately a 10 per cent basis, the proceeds from the sale of the bonds and preferred stock being just about sufficient to cover the initial costs. The company was promoted by men considered among the most efficient electric light promoters in the United States. Their estimate for the gross earnings of the first year of business (the estimate given in the letter) was more than what was actually realized by the new company, but their estimate of the net earnings was under what was obtained. In other words, the promoters counted too much on a sudden increase in the new business, although three years later the gross earnings far exceeded in amount what could have been anticipated at the time of the promotion. It is a common error for engineers to presume that new contracts can be adjusted and the services connected in a shorter time than is actually possible. On the other hand, the promoters underestimated the effect of their efficient methods of operation on the costs of producing electricity. This too is a common error of engineers. The savings accomplished by a change from antiquated, unintelligent, and cumbersome methods of operating an electric plant to modern scientific methods are little short of marvelous.

In order to follow other and later aspects of this promotion a banker's circular covering a later sale of preferred stock is reproduced in the chapter dealing with the sale of securities. The later earnings stated in this circular may be compared with the promoter's letter just reproduced.[9]

New Hydro-Electric Development—Financial Plan.—The financial plan of a new hydro-electric development deserves a separate treatment. These enterprises are promoted frequently at the present time, and many bankers have led their customers to believe that they afford the same basis of security as steam, electric lighting, and gas plants. This is probably not true. It is surely not true when the two types are in the promotion stages. Few promotions present greater uncertainties than the undeveloped hydro-electric enterprise, especially if a considerable portion of the demand for current comes from mining, milling, or extensive manufacturing works. Estimates, both of costs and earnings, are not reliable. The prices of labor and material may rise during the period of construction; unforeseen engineering difficulties, such as porous rock or sudden frosts, may upset the most careful calculations. Even after the dam is built, several years are required to secure the anticipated number of customers. Meanwhile droughts or sudden freshets may jeopardize the solvency of the enterprise.

In the development of our various water power systems all these, and more, difficulties and unforeseen trials have been met with. Elaborate rock drillings were made on a dam site which, from mere superficial observation, seemed unusually favorable, as part of a preliminary survey for the dam of the old Hudson River Electric Company.[10] The company was promoted, however, with insufficient financial backing, which, even though all the attendant circumstances should prove favorable, augured ill. The drillings, however, had failed to bring to light an enormous hole in the rock strata where the dam was being built. This had to be filled with cement at a cost of several hundred thousand dollars. Because of the unlooked for heavy cost of construction, and a combination of poor contracts and marked variations in stream flow the company failed. The Appalachian Power Company was promoted without assurance of profitable markets for its power, and without full realization of the abrupt alterations of droughts and freshets in the Virginia Mountains. As a result in 1914, the first full year, a drought reduced the electrical output to a fraction of the capacity, while in July, 1915, a flood put the generating plant out of commission for a period of five days. In 1916 it was planned, in order to balance the water power, to expend $45,000 for steam power but $164,000 was actually expended. Even more extreme conditions were met with in 1917.[11] The Kaministiquia Power Company, Ltd., built in a sparsely settled region of Ontario a large development to supply two customers. Through the activities of the Hydro-Electric Commission of Ontario, the Power Company lost these two customers at the end of short contracts. The Colorado Power Company failed at the beginning because the promoters neglected to take into consideration the marked variability of demand of the mining industry and because steam could produce electricity, with the irregular demand load, more cheaply than water power when the heavy capital charges of the latter were considered. The number of such examples might be multiplied almost indefinitely, only to illustrate further the general uncertainties of construction, of stream flow and market which invariably—to a greater or lesser extent—surround the promotion of every hydro-electric company.

---

[9] See Chapter IX, note (j).

[10] One of the merged corporations of the Adirondack Electric Power Corporation.

In contrast to blunders such as these the early history of

---

[11] The combination of these misfortunes is observable from the earnings.

YEAR ENDING DECEMBER 31

	1914	1915	1916	1917
Gross Earnings	$531,000	$625,000	$795,000	$948,000
Operating Expenses	242,000	309,000	355,000	526,000
Net Earnings	239,000	316,000	440,000	422,000
Operating Ratio	56%	50%	44%	56%
Interest Charges (including those during construction)	398,000	427,000	448,000	483,000
Deficit	159,000	111,000	8,000	61,000

the Shawinigan Water and Power Company is illuminating. The promoter purposely selected the site of the original power development because of the small cost of bringing into operation the first unit, the steady stream flow, and the low cost of land and rights in the Canadian wilderness. The weakness of the project was the market for power. Montreal was the nearest considerable market but the cost of transmission to reach either Montreal or Quebec would have added immediately heavy fixed charges. Consequently the promoter induced certain manufacturers in industries like paper and electrolysis, who required much cheap power as an essential element, to erect plants near the power station. Thus, with a very small original outlay of capital but with the forces of nature in his favor, the promoter was able to generate at the very outset exceptionally low cost power. Instead of searching out a market for the power, he attracted the market to the place of the power.

Owing to the fact that hydro-electric companies are a relatively recent development of public utility promotions, the general form of the financial plan is less uniform than in the case of water, gas, or steam electric companies. While the possibilities of unusual development costs must be provided for, when the hydro-electric plant is finished it is more certain that a considerable margin of net earnings can be saved from the gross earnings than in the case of another utility. Hence there must be a wide latitude for the issue of additional securities, and a considerable proportion of the cost can be met by the sale of fixed charge bonds.

Typical Hydro-Electric Financial Plans.—In order to form some general or composite picture of hydro-electric financial structure an attempt was made to construct a thoroughly typical plan. To this end a study was undertaken of the financial structures of 98 hydro-electric companies, all with net capitalization in excess of $500,000, all operating in the United States and the great majority incorporated between

1900 and 1920.[k] The financial plan of each was then reduced to a standard form, the ratio between the different classes of securities computed for each case, and then a kind of composite financial plan constructed out of these ratios.

This was the result:

	Authorized	Issued	Percentage of Total Capitalization Represented by Each Security	Percentage of Authorized Issue
First Mortgage Bonds—interest rate 5%, Sinking Fund, callable at 105 after 60 days' notice	$3,026,000	$1,118,000	50%	39.7%
Short-Time Notes	None			
Preferred Stock—7% cumulative, non-callable	1,000,000	430,000	20	43
Common Stock	900,000	639,000	30	71
Total Capitalization	4,926,000	2,249,000	100	45.5

In brief, a large authorization of bonds is made, only about two-fifths of which are issued; but this bond issue represents about half the total capitalization. Of the remaining half—the stock of the company—about 40 per cent is preferred stock and about 60 per cent common stock.

Marketing Hydro-Electric Securities.—Granting, however, that an accurate estimate of earnings and an accurate estimate of costs have been made, which make possible a financial structure not unlike the one just described, the more difficult problem of marketing the securities remains. Whatever securities are issued must be sold at such prices as will

---

[k] The following table shows the wide distribution of companies.[12]

Section of the United States	Before 1900	1900 to 1905	1906 to 1910	1911 to 1915	1916 to 1920	1921 to 1925	Total
New England	5	3	6	8	2	1	26
Middle Atlantic	2	2	2	1	2	1	10
South Atlantic	..	1	4	4	1	..	10
Northeast Central	2	..	2	1	3	1	9
Northwest Central	1	1	4	5	..	1	12
Southwest Central	..	2	2	..	2	..	6
Mountain	..	..	3	5	2	..	10
Pacific	1	3	6	3	1	..	14
Cuba	..	..	..	..	1	..	1
	11	12	29	27	14	4	98

The selections are believed to be typical of the geographical section and the fashion of financial structure at the time of incorporation.

---

[12] Study of Sawtell, Clement C., Harvard Graduate School of Business Administration (1925).

yield the new company money enough with which to build its plant. But the securities must offer some semblance of security, else even the most speculative of investors will frown upon them. To secure these two ends one of two plans is ordinarily followed. According to one plan, not only first mortgage bonds, but preferred and common stocks as well are issued to a large amount in the first instance and sold at considerable discount. According to the other plan stocks only are issued to the public at first and construction money notes are hypothecated by the bankers or promoters as security for bank or syndicate loans. In this latter case, bonds are not sold until earning statements are available. This method is preferable but less frequently used, as it involves the bankers and promoters in more risk.

THE "BLOCK SYSTEM."—If securities are sold to the public at the beginning in such amounts as to give sufficient money with which to build the plant, the "block" system can often be adopted. This is a device used by bankers in the hope of combining two elements never yet successfully combined, namely, security without risk, and speculative profit.[1] It consists of selling a bond, a few shares of preferred stock, and some common stock, for a lump sum. As the lump sum is considerably less than the total par value of the securities, it can be made to appear that the purchaser is getting something for nothing. In the vast majority of instances he is really paying a higher price for the bond than its security would warrant, an exorbitant price for a preferred stock of questionable value, and something for common stock of no value. The investor is led to believe that the bond is absolutely sound. He reasons, therefore, that, even should the enterprise fail, he would be secure in his original investment, and should it succeed his stocks would acquire large value. Under such circumstances both the promoters and the investors are pleased—both congratulate themselves on being clever. The chief objection to the plan from the point of view of the corporation is the expense. The company is forced to issue its securities at such discounts that the high cost of the money, especially when the interest during construction period is capitalized, in most cases, stifles the enterprise almost at birth.

---

[1] The block system has also been applied with considerable success to the sale of the securities of large public utility holding companies. As may be inferred from the paragraph in the text, the use of "blocks" has been often abused by bankers. Often the holding company for a hydro-electric power enterprise is promoted by the use of this device. The securities of the unfortunate Northern Idaho and Montana Power Company were sold to New England investors by the block system in a manner that enabled the bankers to successfully veil the highly speculative character of the enterprise. The use of the "blocks" was most common in the United States in 1910 and 1911. Owing to the numerous losses it occasioned, the system has been less popular with investors since that time. It was used but seldom during the Great War. Since 1923 a few "block sale" promotions have made their appearance again.

Many cases can be used to illustrate the block system or some modification of it, employed to sell the securities of a hydro-electric enterprise at the outset. The following is a typical financial plan of a hydro-electric promotion. In this instance, it should be said, the unpredictable difficulties which befell the enterprise were comparatively few.

A promoter-engineer estimated that a certain power dam in the south, a transmission line, and the purchase of the distributing system in a small city, would cost $2,800,000. He estimated that, on completion, it could secure an income of at least $275,000 from primary current, and he was promised contracts for secondary current of approximately $50,000 for the first year. He estimated further that the expenses of operation, on the basis of these contracts, would be about 22 per cent. The power company would have, therefore, net earnings of approximately $250,000. Accordingly the bankers assumed that at least a yearly fixed charge of $150,000 could be safely borne by the new company. Furthermore, they concluded that it could carry also a contingent preferred stock charge of $70,000. On these assumptions, the bankers issued at the outset $3,000,000 first mortgage 5 per cent bonds, $1,000,000 preferred stock 7 per cent, and $3,500,000 common stock. By themselves the bonds could not have been sold to the public for over 80 per cent, so that the company would not have realized more than 75 per cent of par, or $2,255,000. The preferred stock alone would have been unsalable, so also would have been the common stock. But the bankers were able to sell:

$1,000 in 5 per cent bonds	$1,100
$200 in 7 per cent preferred stock	
$500 in common stock	

The investor thought that he was getting $1,700 par value for $1,100; he was really paying $750 for the bond, $80 a share for the preferred stock, and $38 a share for common stock. This was at least $20 a share more than the preferred stock was worth by even the most sanguine calculation. The common stock, no matter its amount, would have no real market value, although some speculators might pay $10 a share for it, on the basis of the estimated earnings. In other words, the speculative investor was deluded into paying upwards of $180 more than the securities were worth, at a most favorable valuation, on the presumption that he was acquiring them at bargain prices. The financial plan worked out as follows:

	Issued	Sold in Blocks
Bonds	$3,000,000	$3,000,000
Preferred Stock	1,000,000	600,000
Common Stock	3,500,000	1,500,000
Money Realized for the Blocks		3,300,000
Cash Commission to Bankers		300,000
Net to Company		$3,000,000

This amount of $3,000,000 proved ample to build the plant. The interest on the securities during the construction period of sixteen months, $307,000, was borrowed on the open market and charged to capital account.

There remained to the promoter $400,000 preferred stock. The promoter took $84,000 par value of this to reimburse him for approximately $42,000 of expenses and costs not included in the estimate; the bankers and promoter each took $100,000 and the remaining $116,000 was left temporarily in the treasury of the company. The $2,000,000 of common stock left after the allotment that went with the blocks, was divided equally between the promoter and the bankers, although both parties assumed certain obligations in the form of commissions which depleted considerably the amounts remaining to them.

ISSUING STOCKS ONLY.—The second method of arranging the financial plan of a new hydro-electric company, that of issuing only stocks at the beginning, is better from every point of view than the first. It is, however, less frequently followed because it throws more responsibility onto the shoulders of the bankers. Preferred stock is sold directly to the speculative public, with a liberal allowance of common stock. These sales supply from a third to a half of the money required to pay for the hydro-electric development. The rest is advanced by the bankers themselves, as a current loan; or the company issues purchase money or construction notes which are indorsed and discounted by the banker; or, again, a syndicate is formed by the bankers which makes loans to the company on its own notes in consideration of a liberal discount rate and a stock bonus.[m] The bankers themselves assume directly and explicitly the major part of the financial responsibility of the company. They put their own money or their own credit into it. Financed in this manner, the company is under no necessity of offering its bonds to the public until after the entire development is completed, perhaps even after the earnings of a full year are available.

Human Factors in Promotion.—The treatment of the form of the financial plan of a modern public utility promotion would be incomplete without reference to the internal strife that invariably occurs among those concerned. No considerable promotion ever occurred but carried its full complement of jealousies, animosities, suspicions, ambitions, and all the interplay of human passions that necessarily result when men of strong but antagonistic personalities come into conflict. These personal equations affect not only the form of the securities to be issued, but also the absolute amounts as well. Narrowed down the situation usually turns into a three-cornered battle between the owners, who are asked to take securities in lieu of money, the promoter, who wants to make a money profit and receive a large share of the common stock, and the bankers, who seek to force the owners to take new securities and to force the promoter to be satisfied with a small portion of common stock and no money profit. The struggle usually turns about the distribution of the common stock. The promoters claim that the services of the bankers are merely incidental, that they receive a profit on the sale of the bonds and are soon relieved of their responsibility, and that they are therefore entitled to only a small allotment of common stock. The bankers, on the other hand, contend that the promoters have risked little except their reputation, often of slight value, while the real responsibility falls on the shoulders of the banker who furnishes the bones and the sinews of the new enterprise. In the end, concessions are made on all sides or else one of the parties, quite often the bankers, eliminates the others and assumes absolute control.

---

[m] This stock bonus to the underwriting bankers may be, and frequently is equal to that retained by the managers, so that the enterprise becomes, in effect, a joint partnership between the utility operators and their bankers. In extreme cases, the bankers may even demand the lion's share. In one of the promotions in connection with the Great Western Power Company the bankers received half the preferred shares in addition to the common shares.

Every promotion that the writer has ever followed has had its intensely dramatic episodes. The struggles, deceits and misrepresentations, the play of primal human emotions, the unrestrained anger caused by the sudden conflict of different types of personalities—all these are the undercurrents of every promotion. They never reach the open light, for in the end the only thing the public knows is the prosaic and unemotional banker's circular, notable more for the things it does not say than the things it does. But behind the whole promotion is a lurid background of human victory and defeat, of overmastering personality and thwarted ambitions. No phase of our modern industrial world, unless it is that of reorganization, reaches deeper into the primal forces of human personality.

A Typical Case.—A description in detail of any actual promotion would illustrate the truth of this statement. To make the whole subject of "negotiation," which precedes every promotion, clearer it seemed perhaps illuminating to trace in some detail the succeeding steps of a single promotion. The names and the exact figures—but not the proportions—are changed. Certain unimportant details and a few of the lesser skirmishes are omitted. In all other respects, the account is reproduced from actual memoranda taken during the progress of the promotion.

Through a curb broker, a man by the name of Richards was introduced to two promoters, Roe and Doe, who had acquired through the payment of a sum of money, two-thirds of it borrowed, the "contract of sale" of a public utility in a thriving eastern industrial city. The price called for was $800,000, and in addition $300,000 had to be raised at the same time for the construction of a new central power station, as the old station was obsolete beyond rejuvenation.

The curb broker, Roe, and Doe, then went through the preliminary forms of organizing a corporation with $2,000,000 bonds and $2,000,000 common stock. The curb broker had arranged with Roe and Doe, by a verbal understanding, to find investment bankers who would supply the money through the purchase of bonds and a relatively small stock bonus. The curb broker was to receive 2 per cent commission on the bonds issued and $60,000 par value in common stock. Richards introduced Roe and Doe to Smith and Peters, investment brokers. The curb broker had nothing further to do with the promotion, the negotiations taking place between the promoters and the bankers, with Richards acting as the ostensible intermediary, but actually as the accredited representative of the bankers.

The following were the successive plans:

1. July 27. *Proposed by promoters:* Bonds, $1,400,000, to be bought by bankers at 85; common stock, $2,000,000—bankers to have $400,000, the remainder to promoters; refused categorically by bankers.

2. August 17. *Proposed by promoters:* Bonds, $1,000,000, to be bought by bankers at 85; preferred stock, $400,000, to be taken by promoters at 80; common stock, $2,000,000, to be divided as follows: $1,000,000 to promoters, $400,000 bonus to public buyers of preferred stock, $200,000 bonus to certain other unnamed parties who had advanced money to promoters, $400,000 bonus to bankers; refused by bankers with the comment that they "were interested."

3. August 24. Richards, Smith and Peters, and expert engineer visited the properties with Roe and Doe. Bankers stated to promoters that they would "go into" the proposition provided: (a) the conditions of incorporation and mortgage lien were satisfactory; (b) only $680,000 of bonds were issued in the first instance; (c) bankers received reasonable allotment of common stock; (d) promoters assume responsibility for sale of preferred stock. These tentative terms accepted by promoters.

4. September 2. *Proposed by bankers:* Bonds, $800,000, to be bought by bankers at 83; preferred stock, $400,000, to be bought by promoters at par; common stock, $2,000,000, to be divided as follows: $400,000 bonus to public buyers of preferred stock, $200,000 commissions to various parties, including bankers and attorneys, $700,000 to promoters, $700,000 to bankers; refused by promoters.

5. September 4. Smith, Richards and the promoters meet in a New York hotel and effect the following compromise agreement: Notes for $320,000; bankers agreed to secure loans on these notes on behalf of company, but payment of these loans to be guaranteed to bankers by promoters. Bonds, $800,000, but there was to be issued and bought by the bankers at 83 only enough to provide, with the proceeds of the loans and preferred stock sale, the $1,100,000 required to pay for the plant and new power station. Preferred stock, $400,000, to be bought by promoters at 83. The proceeds of the loans and the sale of sufficient of the bonds and all the preferred stock to be paid in immediately to complete payment for property. Common stock,

$2,200,000 to be divided as follows: $200,000 commissions to various parties, including bankers and attorneys, $900,000 to bankers, $1,100,000 to promoters.

6. September 15. Promoters inform bankers that they cannot feel sure that they can have the proceeds of the sale of the preferred stock ready to pay down at the time the bankers' money is available to take over the property. As promoters had signed previous agreement A (5, Sept. 4), it was a virtual repudiation of their contract. Bankers then say that plan must be readjusted. Bankers propose that afternoon the following plan, which is accepted by promoters tentatively. Bonds, $680,000, to be sold to bankers at 86, less commission of 3 per cent. Notes, $265,600; note of company to be negotiated and indorsed by bankers. Preferred stock, $400,000, divided as follows: $200,000 to the promoters, to be paid for at 83, at the time of the formation of the company; $200,000 to be used as collateral by promoters under a guarantee to bankers or company that promoters buy and pay for it outright within 30 days. Common stock, $2,200,000, to be divided as follows: $200,000 commissions, $1,000,000 to bankers, $1,000,000 to promoters.

7. September 21. Promoters state that they will not sell preferred stock. Bankers then insist on readjustment of plan. They propose new plan which is accepted by promoters and a formal agreement is drawn up. Bonds, $680,000, to be bought by bankers at 86 per cent, less commission of 3 per cent, in the form of company notes. Notes of $265,600 negotiated by bankers. Preferred stock, $400,000, to be divided as follows: $188,000 taken by promoters at 83; $212,000 used by bankers as collateral for loans, but under guarantee that promoters will sell stock at 85 in 30 days. Common stock, $2,200,000, divided as follows: $180,000 commission to bankers, attorneys, etc.; $400,000 fund to be used as bonuses in selling other securities of company; $410,000 to promoters immediately; $240,000 to promoters after selling remainder of preferred stock; $870,000 to bankers.

October 3. Promoters repudiate plan, after they have analyzed it and come to realize that control passes to bankers. Promoters become very angry, as they begin to realize that Smith and Peters will not furnish the money and take the risk, while they, the promoters, reap the major part of the profits. A heated meeting occurs at which Roe accuses Richards of plotting to rob him of the property. Roe calls Richards a "d—— black-whiskered Jew!"

Roe and Doe begin negotiations with other bankers, notwithstanding their agreement of September 21 with Smith and Peters.

October 9. Smith and Peters hear indirectly of these other negotiations and, through questioning of Doe, learn the details.

October 11. Smith and Peters telegraph the other bankers that Roe and Doe have a contract with them for the promotion of the project, and that if the other bankers interfere, Smith and Peters will hold them liable for breach of the contract. Roe, who is shown the telegram, flies into a rage and the other bankers withdraw.

October 13. Roe accuses Doe of playing false in allowing Smith and Peters to discover Roe's double dealing. The two exchange heated accusations, and Doe says he is going to withdraw from the whole promotion if he can get back the money he has put in. (Roe had put in $40,000 of borrowed money—nothing of his own—and Doe, $20,000 of his own money as partial payments on the property. Doe had also paid preliminary expenses to the amount of $12,000.)

October 15. Doe tells Smith and Peters that he is "sick of the whole thing" and suggests that Smith and Peters buy out the interest of the promoters and take over the whole enterprise themselves.

8. October 17. Promoters offer to sell their interest in the project, on which they had paid $60,000, to the bankers for $90,000. Bankers refuse.

October 17 (Later in day). Bankers intimate that they will accept responsibility for the promotion and buy interest of promoters, provided latter will take part payment in securities. Promoters forced to admit that their direct investment is only $60,000, of which $40,000 was borrowed on the promise that it would be returned immediately on consummation of promotion. Lender was to receive in addition a common stock bonus. (One of the unnamed parties mentioned under plan No. 2, August 17.)

9. October 19. Bankers, after consultation with two associates who agree to participate with them in the undertaking, make the following offer:

They will organize a company with the following capitalization:

Bonds,	$ 680,000—5%	First Mortgage
Notes,	440,000—6%	Second Mortgage
Preferred Stock,	240,000—6%	Cumulative
Common Stock,	1,100,000	

They agree to assume the original contract and pay the balance of $740,000 (the promoters had, as stated, above, paid down $60,000, of which $40,000 was borrowed by Roe and $20,000 furnished by Doe) and raise the $300,000 necessary for the construction of the new plant. They offered Roe $40,000 in money, to enable him to make restitution, and $50,000 in common stock, out of which he must settle with the party from whom he borrowed on the promise of a common stock bonus. They offered Doe $20,000 in money to reimburse him for the money he had advanced on the purchase contract, $12,000 in the 6 per cent notes of the new company to repay him for his expenses, and $50,000 in common stock. The bankers also agreed to settle with the attorney of the promoters and their general utility man by the payment of $8,000 in 6 per cent notes of the new company, and $40,000 in common stock. Bankers gave the promoters until 12 midnight the following day to accept or reject the proposition.

Doe accepted immediately.

Roe accepted, after numerous plays and counterplays, five minutes before midnight.

As the aftermath, Roe threatened to shoot Richards, whom he blamed for aiding and abetting the bankers.

November 10. The curb broker threatened to bring suit against Smith and Peters for a commission. Smith and Peters told them to go ahead. (Suit was not brought because the curb broker had quarreled with his partner, necessarily a party in the suit, over a woman stenographer.) They could have probably maintained a suit against Roe and Doe, for whom they were acting in bringing Richards into the matter, but they recognized that, even if successful, they could recover nothing.

CHAPTER VII

THE FINANCIAL PLAN OF A RAILROAD PROMOTION

The financial plan of a new railroad is in certain respects a simpler and in certain respects a more complex problem than that of either a manufacturing or a local utility company. It is simpler because there are ordinarily fewer kinds of securities and less intricate conditions of issue. It is more complex because ordinarily the actual construction is undertaken by an intermediary finance company, the fortunes of which largely mould the financial plan of the railroad.

Contemporary Railroad Promotions.—Railroad promotions of the present time are of three distinct kinds. There are still a few small, independent railroads promoted by "leading men of the community," for the purpose of opening up new regions previously beyond the reach of cheap transportation. The practice is a relic of forty or more years ago when the constructive business genius of America was engaged in the mapping out of our great network of railroads. But it is a relic only, and such promotions are of historical interest for their archaic cumbersomeness, rather than for any current economic interest. A second class represents the ordinary promotion of the small independent railroad, built through country already partially served with railroad facilities but sufficiently prosperous to warrant a new and competing line. A third class consists of the new branches of already existing railway systems. In most cases, these branch and connecting lines come into existence as separate corporations, although their parentage is thoroughly recognized. Small as has been the new railroad construction since 1912, by far the largest part has been these small, subsidiary offsprings of the larger systems. In fact it may be said that new, independent railroad construction has been a negligible element of our industrial life since the panic of 1907.

These three groups are not distinct. The differentiation between a "new" road promotion of the old-fashioned sort and a competing line, which justifies itself on the ground of directness or improved connection, is very hard to make. And very many of the new connecting lines, presently to be merged with great systems, were promoted as independent roads without visible connection with their adopted parent.[a] In strictness, of course, a discussion of the promotion and the financial plan of a new railroad excludes these branches and connecting line roads built by the larger systems. Yet the form and the steps of such promotions are often strikingly like those of the smaller independent systems. Attention is therefore directed in the present chapter mainly to small railway promotions.[1]

Early Railroad Promotion.—As suggested already, the small independent railroad promoted by the community itself for local improvement is a thing of the past. Originally the new railroad was a civic improvement. The Baltimore and Ohio was built in order to give Baltimore access to the region beyond the Alleghany,[2] the original New York and Erie in order to give the lower tier of New York counties access to a

---

[a] Thus when the Seaboard Air Line began, in 1915, to carry out its long planned direct low-grade line through Charleston to Savannah, it developed its plan at first through the Carolina, Atlantic and Western Railway, one of its recognized subsidiaries. But the Carolina, Atlantic and Western Railway had its origin in three or four small independent lines built by an independent promoter, Bonsall by name.

---

[1] A great deal has been written in the past concerning railway promotions. Much is of little scientific value, because of the avowed purpose of the authors to expose the moral turpitude of the erstwhile railway promoter. For example, the following title is suggestive: Doyle, John T., "How to Build Railroads, Mortgage Them for Twice Their Value Before They Are Built, Keep Half the Bonds and the Railroad Also—The Value of Such Bonds as an Investment," 29 Am. Law Rev., 905 (1895).

For elaborate studies of railway promotion, especially in the earlier years, see Cleveland, F. A., and Powell, F. W., Railroad Promotion and Capitalization in the United States (1909). This book contains an exhaustive bibliography, and is the most considerable study of railroad promotion as such. Less elaborate but resting their conclusions on a wide historical background are the chapters on railroad promotion in Ripley, W. Z., Railroads, Finance and Organization, 1 (1915); Cleveland and Powell, Railroad Finance, 14-81 (1912).

[2] For the early history of the Baltimore and Ohio Railroad, see Bowen, E., Rambles in the Path of the Steam Horse (1855); Smith, W. F., History and Description of the Baltimore and Ohio Railroad (1853); Smith, W. F., The Book of the Great Railway Celebrations (1858); Reizenstein, M., "The Economic History of the Baltimore and Ohio Railroad," 25 Johns Hopkins Univ. Stud. His. Pol. Sci. 275 (1897); Latrobe, J. H. B., The Baltimore and Ohio Railroad (1868).

market.[3] When capital was being gathered for the Western Railroad of Massachusetts, clergymen preached about the economic, social, and—by implication—the moral value of the enterprise. Often, in order to stimulate subscriptions great mass meetings were held along the line of the proposed road.[4] Local newspapers lent their editorial and news pages to the prospective enterprise. Often there was a house-to-house canvas for subscriptions, similar to those in behalf of the Liberty Loans of the Great War.[5]

In addition to the private aid extended to the new railroad enterprise, towns, counties, states, and the national government granted lands, money, and credit. In New England the towns would issue their bonds and then with the proceeds buy the bonds of the new railroad enterprise.[6] In other sections of the country, the states of the Middle West and South would commonly grant land,[7] and in the far west land grants were made by Congress. Many, perhaps most, of the new enterprises could not be made to pay immediately, owing to the undeveloped sections of the country and the large expenses of operation. Consequently, most of them failed. In the case of the New England enterprises the towns found themselves with a new burden of debt and elsewhere the bondholders lost practically their entire investment. Yet, in spite of the individual losses, the waste of public lands, and the misuse of public credit, it is doubtful if the railroads could have been built so quickly, or extended so rapidly, in any other way.

---

[3] For the early history of the Erie Railroad see Mott, E. H., Between the Ocean and the Lakes (1901); Lord, E., Historical Review of the New York and Erie Railroad (1855).

[4] A gossipy, but instructive and probably accurate account of these popular meetings is to be found in Mott, E. H., Between the Ocean and the Lakes (1901). (Narrative of the Erie Railroad and its corporate predecessors.) Early New England and Middle States newspapers abound in accounts of festivals in connection with the starting or completion of new railroads.

[5] For example, large areas of Philadelphia inhabited by people of moderate means were canvassed in behalf of the building of one of the early sections of the Pennsylvania Railroad.

[6] See Bliss, G., Historical Memoir of the Western Railroad (1863); Hill, B. T., Beginnings of the Boston and Worcester Railroad (1901); Pro. Worcester Soc. of Antiq., 527 (1902); Adams, C. F., Jr., The Canal and Railroad Enterprise of Boston (1881).

[7] See Ackerman, W. K., Early Illinois Railroads (1884); Bishop, J. W., "History of the St. Paul and Sioux City Railroad," 10 Minn. His. Soc., 399 (1905); Brownson, H. G., A History of the Illinois Central Railroad; Cary, J. W., The Organization and History of the Chicago, Milwaukee and St. Paul Railway Company (1893); Phillips, U. B., The History of Transportation in the Eastern Cotton Belt to 1860 (1908).

New lands were opened up long before conservative judgment would have prompted, and once opened up became a national asset of great value. The hectic finance of early railroad building was the price—on the whole a very cheap price—which the country paid for the marvelous industrial expansion which followed the extension of cheap transportation.

Many of the methods pursued in these early promotions are still followed, without the public credit and public acclaim. The promoter is usually a civil engineer who has had some practical experience in railroad construction. Quite frequently he is a native or resident of the locality in which he proposes to build his new road. At all events he makes himself popular with the influential men along the proposed route. He secures traffic agreements with the connecting lines and makes the necessary connections with bankers. Subsequently he superintends construction and, after the completion of the road, he may continue to operate it.

The Construction Company.—The outstanding feature of railroad promotion is the construction company.[8] This element may be, and often is, present in the promotion plans of other enterprises which involve large building operations, but it is an almost universal part of a railroad promotion.[9] Many forms of construction companies have existed in the past.[10]

---

[8] See references relating to the Credit Mobilier, note 10 below; also Smalley, E. V., History of the Northern Pacific Railroad (1883).

[9] The customary use of the construction company in early railroad building was the subject of severe arraignment by Hassler, C. W., Railroad Rings and Their Relation to the Railroad Questions of the Country (1876).

[10] The two which have become classic in the literature of railroad promotions are the Credit Mobilier, the construction company for the original Union Pacific, and "C. Crocker and Company" for the original Central Pacific.

An elaborate outline of the Credit Mobilier may be found in House Report 77, 42d Congress, 3d session (Feb. 18, 1873), covering a Congressional investigation of the Credit Mobilier, and House Report 78 (same Congress and session), covering the Union Pacific. The whole promotion of the Union Pacific has been treated in White, H. K., History of the Union Pacific (1895). The parts of this essay relating to the promotion have been made universally available in Ripley, W. Z., Railway Problems, Chap. IV (1913); also Trottman, Nelson, History of the Union Pacific (1923); Davis, J. P., The Union Pacific Railroad (1894); Crawford, J. B., The Credit Mobilier of America, Its Origin and History (1880). Somewhat biased discussions are Hazard, R., The Credit Mobilier of America (1881); Ames, Oakes, A Memoir (1883); Hollister, O. J., Life of Schuyler Colfax, 381 (1886); Garfield, J. A., Review of the Transactions of the Credit Mobilier Company, etc. (1880).

The construction of the Central Pacific Railroad, the rôle of "C Crocker and Company," and the four evil geniuses of the undertaking (Collis P. Huntington, Leland Stanford, Charles Crocker, and Mark Hopkins), far more than the building of the Union Pacific, is a story of misrepresentation, deceit, and wanton betrayal of trust. For extended account see Daggett, Stuart, History of the Southern Pacific

The typical procedure is as follows. Several of the leading stockholders form a corporation, to the share capital of which they subscribe in cash. This independent corporation is now given some fictitious name, say the Alleghany Construction Company. The railroad corporation, having acquired its charter and certificate of incorporation but owning as yet no property, then enters into a contract with the construction company covering the actual building of the road. Sometimes the title to the right of way is acquired directly by the railroad, but more often by the construction company. The contract between the two provides that for every section of one, ten, or a hundred miles of completed road turned over by the construction company to the railroad, the latter will surrender to the construction company a certain number of bonds and stocks of the railroad. The first section of the road is built by the money subscribed by the stockholders of the construction company. The cost of the second section is defrayed by the proceeds of the sale of the bonds and a part at least of the stock received by the construction company from the railroad. For this second section, completed, the construction company receives another block of securities which are sold to meet the cost of the following section. The process is continued until the last section is completed.

As a result of the process, the construction company ends by owning all the securities of the road not actually sold to secure the cash for the purchase of equipment. This is its profit, provided the securities—as is presumed although not always true—are worth more than the stock capital originally subscribed by the stockholders of the construction company. These securities remaining in its hands may be divided among the shareholders of the construction company, or sold for cash

---

(1922). A brief account is given in Cleveland and Powell, Railroad Finance, 70 (1912). For longer discussions see the various Congressional Investigation reports relative to the Pacific railways, particularly Pacific Railway Commission Report (1887), and Senate Committee on Pacific Railroads (1897). Distinctly biased discussions are: Robinson, J. R., The Octopus (1894); Graham, R. S., The Central Pacific Railroad Company (1889); Lansing, G. L., Relations Between the Central Pacific Railroad Company and the United States (1889); Haymond, C., The Central Pacific Railroad Company (1888).

and the proceeds divided. In rare instances the construction company is kept alive as an investment company.[b]

Construction Company—Evils.—In the early period of railroad building, the members of the construction company, individually or in the name of the railroad, sought to sell the securities to the public. This was entirely satisfactory so long as the public continued to buy the bonds of the unfinished road, but when the construction company failed to effect a steady outlet of the securities and it became choked with undigested obligations of the railroad, it was short of money to pay for materials and labor. Work ceased and the whole enterprise came to a deadlock. Sometimes a new construction company was found to assume the obligations and assets of the old,[11] but more often the railroad and the construction company failed together.[12] Of late years the construction company has assured itself of an outlet for its securities, as one of the necessary prerequisites of starting the whole enterprise, by contracting with bankers for their sale to the public. The bankers, in consideration of liberal commissions and stock bonuses, agree to buy the bonds of the construction company for cash as rapidly as they are received from the railroad. Granting the integrity and selling power of the bankers the construction

---

[b] The Aroostook Construction Company was incorporated February 28, 1891, for the purpose of building the Bangor and Aroostook Railroad. The construction company had left in its treasury, after completing the railroad, practically all of the railroad's stock. Instead of dividing or selling this stock the construction company has been continued as a kind of investment and controlling company for the railroad. As things now stand, the construction company, with a capital stock of $500,000, owns virtually all of the railroad's $3,800,000 of common stock, which controls the railroad, representing an investment of approximately $30,000,000.

For a recent case of the older methods, see the use of two construction companies in the building of the Kansas City, Mexico and Orient Railroad. As Ripley expresses it, "the most inviting layout of securities was offered to investors," and in a note he states in detail the "inviting layout." Ripley, W. Z., Railroads, Finance and Organization, 16 (1915).

---

[11] Several successive construction companies were used in building the Pacific railroads; for detailed reference see note 10.

[12] A striking account of early construction company methods, of duplicity of railroad and construction company officials, and of the evil results as shown by certain episodes in the history of the Chicago, Burlington and Quincy Railroad, is given in Pearson, H. G., An American Railroad Builder (1911). Important sections covering the construction of the so-called "River Roads" were reproduced in Ripley, W. Z., Railway Problems, 82 (1913).

company becomes assured of sufficient money to carry out its building contract with the railroad.

onst. profits

Three sources of profit fatten the treasury of the construction company—profit on land purchased on account of the road, profit on labor and materials furnished for construction purposes, and profit from the direct sale of the railroad securities. Aside from the ability of the construction company to market the railroad bonds, a matter upon which the success of the whole enterprise hinges, the success to the construction company turns upon the character of the building contract upon which the relations of the two corporations are based. As the few stockholders of the construction company are the influential stockholders of the railroad company, this contract is usually conspicuously favorable to the former corporation—so favorable indeed is it sometimes that the few within the inner ring reap an inordinate surreptitious profit. In consequence the new road emerges with a large volume of stock and bonds, which stifle it almost before it is born. In a few notorious instances, like C. Crocker and Company[13] in connection with the building of the Central Pacific, the individual members of the construction company reap exorbitant secret profits by personally selling their company supplies and construction material at prices above the market.[c]

---

[c] One of the most notorious of construction company exploitations was that of the building of the Hampden Railroad. The details of its operation are of considerable interest as they carry forward into this century methods and expedients employed in the promotion of a small railroad sixty or seventy years ago. The outstanding facts seem to be as follows: In 1910, Charles Mellen, then President of the Boston and Maine Railroad, the latter having passed under the control of the New York, New Haven and Hartford Railroad, conceived the idea of connecting the Massachusetts Central, a poor single-track subsidiary of the Boston and Maine, with the New York, New Haven and Hartford at Springfield. This link would represent about 15 miles of line. It would enable the New Haven and the Boston and Maine roads to run trains from New York to Northern New England points over their own tracks.

Mellen gave one Gillett, then head of the Woronoco Construction Company, a small contracting company which had already done work for the New Haven, to understand that the Boston and Maine would lease the

---

[13] To give a semblance of legal immunity C. Crocker resigned from the directorate of the railroad in order to devote himself to the construction contracts, but his place was taken by his brother. See Daggett, Stuart, History of the Southern Pacific (1922).

Construction Company—Advantages.—Fraught though it is with real and apparent fraud, the use of the construction

---

Hampden Railroad when built, and assume its bonds and stocks. This understanding was ratified by both the directors and the stockholders of the Boston and Maine.

Gillett and his business associates then formed the Hampden Railroad Company, of which Gillett was president. Gillett next formed the Hampden Investment Company, with himself as president, to take over the securities of the railroad as rapidly as issued and to supply, through loans on these securities, the necessary construction money. On the strength of Mellen's introduction to prominent Boston bankers, upwards of $2,500,000 of these Investment Company notes were issued, and sold largely to Massachusetts savings banks. The Hampden Railroad issued as well $1,400,000.

Gillett, as president of the Hampden Railroad (and the Hampden Investment Company as well) entered into a contract with himself as the president of the Woronoco Construction Company for the actual building of the road. In the petition to the Massachusetts Railroad Commission it had been estimated that the cost of the road, 20.76 miles in length and reaching the cities of Springfield, Holyoke, and Chicopee, would be $2,190,000, or over $100,000 a mile. Obviously, the plans called for a very well-constructed broad, straight railroad, very much out of keeping with the old curving, steep-grade single-track line of the Central Massachusetts, of which it was to form an integral part.

The contract which Gillett, as personifying the Hampden Railroad Company, made with himself as personifying the Woronoco Construction Company, involved the building of the road at definite unit costs, and cost plus 10 per cent. The road was built with such heedless extravagance, considering its situation, as to suggest that the contractor labored arduously to increase the cost, both by extravagant expenditures, and by excessive and surreptitious profits. Most of the work of excavation, for example, was sublet to other contractors. The profits realized are suggested by the following scales of unit prices:

EXCAVATING UNIT COSTS

	Unit Costs Suggested by Gillett	Unit Costs Approved by Boston and Maine Chief Engineer after Discussion with Gillett	Unit Costs of Work Done by Subcontractors for Gillett's Construction Company.	
			Holbrook, Cabot and Rollins	C. W. Blakeslee and Sons
Earth Cut, per Cubic Yard..	$ .45	$ .375	$ .25	$ .25
Rock Cut, per Cubic Yard...	1.85	1.50	(Loose) .50	.50
			(Solid) 1.10	1.00
Overhaul, per Cubic Yard... (Beyond 1,000 feet)	.01	.0075	.005	.00375

On the excavation covered by these subcontractors the Hampden Railroad Company paid the Woronoco Construction Company $2,686,093, whereas, the Woronoco Construction Company paid the two subcontractors $1,595,270. The apparent profit to Gillett's contracting company was, therefore, $1,090,824, or upwards of 40 per cent of what was paid the subcontractors.

Gillett's report to the Massachusetts Commission showed a cost of $4,396,000, or $300,000 a mile! At that time, in its nearly finished state, the road was only 14.8 miles in length and reached neither Holyoke nor Chicopee, nor any other town of any size. It had only four insignificant way stations. The Interstate Commerce Commission report states, "The company serves several useful purposes in railroad promotion. Ordinarily the new railroad would find it very expensive to secure its right of way if it attempted to do so openly. Farmers are notoriously recalcitrant in arguments over the value of their waste land. Burnt-over sections which, before the railroad was thought of, the farmer allowed the tax assessor to pass over entirely, suddenly assume great value as soon as the railroad is projected through them. Although the grant of a "certificate of exigency," or the exercise of the delegated right of eminent domain, may give the road authority to take the land, nevertheless expensive and annoying litigation results which leaves its scars of public hatred. On the other hand, if the land to be used by the new road is quietly bought in by the construction company, with very little stir, a lower price is invariably paid and no antagonisms are engendered. Again, the use of the construction company permits the railroad to issue "full-paid and non-assessable" stock since there is no issue of stock for specific property that can be independently valued. The road merely surrenders a certain amount of securities for a certain quantity of finished road, and no one can say but that it received full value. Again, too, the road knows, or should know, the exact cost of the road in terms of the only thing the railroad can give—its own securities.[d]

Hampden Railroad runs through a stretch of country which presents no unusual difficulties in the construction of a railroad. It was admitted that by using a different location, by making the road somewhat longer with somewhat less favorable grades, it could probably have been built for from $35,000 to $40,000 (per mile)."[14]

When the whole matter came before the Massachusetts Public Service Commission, the latter was naturally reluctant to allow these inordinate expenditures to be capitalized and the burden shifted to the shoulders of the Boston and Maine. And when, ultimately, the Boston and Maine passed into the hands of receivers, the Hampden Railroad, The Hampden Investment Company, and the holders of the latter's notes were left without a foster parent to assume the burden.[15]

[d] Needless to say the contract between the railroad and the construction company must be binding on both parties; the latter must have something to lose as well as to gain. Too frequently, in early railroad building days, the construction company, finding its contract unprofitable, merely repudiated the undertaking. As the directors of the railroad were probably the stockholders of the construction company no attempt was made to en-

---

[14] 27 I. C. C. Rep. 604.

[15] For further details see Mass. Pub. Serv. Com. Rep., 1914 and 1915.

So that; in spite of the ill repute into which the idea of the construction company has fallen, its use is still retained in promotions. One may sincerely believe, however, that the old profiteering by insiders very rarely occurs now.

The Financial Plan of the New Railroad.—With the exception of the rôle of the construction company, the financial side of railroad promotion is relatively simple. After the promoter has secured the right of way—very frequently this is given him by the towns and the farmers to encourage the new railroad—he arranges with bankers to secure the necessary money. As the promoter is ordinarily a railroad engineer, the usual practice is to leave to him the management of the construction company, the purchase of material, the hire of labor, and the arrangement of traffic agreements with other lines. The bankers confine their attention to the actual financial plan and the more difficult task of the sale of securities.

Ordinarily, only first mortgage bonds and common stock are issued, the former representing the actual cost of the road and the latter the prospective profits of promotion. This is possible because the class of what one might call "speculative investors," to whom bankers would probably sell the securities of an embryo railroad, would not buy preferred stocks, but would insist on just the things bonds and common stock can give—apparent security and an interest in the prospective profits. As there are no earnings to show, and if prospective earning figures are vouchsafed they can be made liberal, a large number of bonds issued in the beginning does not create a prejudice against the enterprise.[17] Investors have become

---

force the terms or collect damages, had any assets remained to the construction company. Thus, in the contract between the Iowa and Mississippi River Construction Company to build the old Chicago, Dubuque, and Minnesota Railroad, it was provided that should the construction company find its own small capital and the very large allotments of railroad bonds and stock exhausted before the road was completed, the directors of the railroad should accept it in the unfinished condition. This was done.[16]

---

[16] Other examples are cited in Cleveland and Powell, Railroad Finance, 63 (1912).

[17] Ripley, in a carefully prepared article, attributed the general unsoundness of railroad finance, in the years just before the Great War, to the predominance of bonds over stocks. *N. Y. Times Annalist*, April 27, 1917.

accustomed to large bonded debts for railroads and are not frightened by them. Consequently the bankers can formulate a financial plan in which the par value of the bonds may equal or even somewhat exceed the actual cash expenditures. Even then, as much if not all of the land on which the road is built is a free gift, it is quite within the truth to say that the actual property of the new road exceeds the par value of its bonds.

This practice of issuing bonds to an amount equal to the cost of the road is not as unjustifiable as might appear at first thought. The bonds would bear at most 6 per cent interest. The road could not justify its economic existence if it could not earn 6 per cent on its cost; so that if the new road should fail to earn its interest charges it would indicate merely that the territory adjacent to the road could not support a new railroad. In other words, if the money invested in the road cannot earn the 6 per cent required for bond interest, that money had better be invested elsewhere.

Common stock is issued at the time of promotion in very liberal amounts. It is the lubricant which makes the wheels of promotion turn easily and smoothly; it costs the road nothing. With the road unbuilt the value of the common stock is very little, and that little is prospective earning capacity, to be made actual only through the concerted endeavor of the very men to whom it goes as compensation for promotion services. In this way, the amount of the interest-bearing securities and the charges upon them may be reduced to a minimum. Were it possible to sell preferred stock alone, or even preferred stock with a liberal bonus of common stock, as is done in the case of industrials, small railroads could be promoted without the initial burden of a heavy bond issue. Unfortunately, however, the inclinations of the investor insist on mortgage bonds for railroads and the pattern of the financial plan must be cut accordingly.

A Small Contemporary Railroad Promotion.—The principles heretofore explained can be well illustrated by a simple case of railroad promotion.[e] A small road of 60 miles was projected through a new country—one of the South Atlantic States. The promoter was a civil engineer who had previously had charge of construction for a large trunk line extending through the section. He was thoroughly familiar with the railroads in the region, as well as the general economic conditions. Through persuasion helped by a pleasing personality he secured the gift of the entire right of way and the terminal sites in three of the five towns through which the road was to pass. The promoter and two banking houses next formed a construction company which assumed the title to the real estate to be used by the new railroad. The railroad company was then incorporated, after the necessary legislative sanction had been obtained. The completed road cost, for the labor of grading, for third quality ties, for sixty-pound relay rails,[f] the necessary sidings and yards, and for the erection of five small stations and one terminal, approximately $850,000 in actual money. This was at the rate of $14,000 a mile, without equipment.[g]

The promoter and bankers, as directors of the railroad, contracted with themselves as the executive committee of the construction company, to deliver over to the construction company $160,000 in first mortgage 6 per cent bonds and $180,000 in stock in return for each section of ten miles of completed road. At the same time the bankers contracted with themselves as the executive committee of the construction company to buy the bonds of the company at 90 per cent, provided they were allowed in addition $120,000 in stock for each ten-mile section. The prospective profit to the construction company was therefore $60,000 par value of stock for each section, since the actual money received from the bankers was entirely absorbed by the direct outlay for construction.

---

[e] The case is an actual instance of the promotion of a small road. Some of the details concerning underwriting syndicates and unessential matters have been omitted from the account, as such details would only needlessly complicate the illustration for the present purpose.

[f] Rails that have been already used on another road, where they have been replaced by heavier rails before they are worn out.

[g] This was a particularly low rate. The time was 1911 when material costs were low; then, too, the construction company received no money profit; second-hand rails were used and it happened that a main line railroad was then changing from 60-pound to 80-pound rails and the construction engineer was able to take his pick of relay rails at a price far below the current cost of new rails; there was no expensive excavation and no large fills; unskilled labor was abundant and cheap in price. All these considerations tended to make the initial construction costs very low.

The first ten-mile section was completed with money subscribed by the construction company's stockholders—the promoter and bankers. Thereafter each section was built from the proceeds of the sale to the bankers of the bonds received for completing the previous section. At the same time the promoter arranged with the manufacturers of equipment to buy two small locomotives for $25,000 and to pay for them by the delivery of $27,500 par value of the first mortgage bonds of the railroad. He also purchased two passenger coaches and a combination passenger and baggage car for $6,000 in first mortgage bonds.[h] The freight cars of other lines were hired to save the cost of freight equipment.[i] The vital point of the financial plan of any promotion of this kind, the relative amount of fixed charge the business can carry wisely, was not considered, because the promoter had assured himself of enough traffic to pay at least 6 per cent on the construction money and had no need to plan further.

---

[h] This device of paying for equipment in bonds is very common. In the case of a large order the equipment companies require that an equipment trust be created. See Book I, Chapter VII. In cases of smaller sales one among the many competing equipment manufacturers will accept bonds in payment for equipment, provided, of course, there is reasonable chance of selling them. This procedure resembles that of New England manufacturers of textile machinery in accepting stock of new cotton mills as payment for mill equipment.

[i] Summarizing the financial plan employed in this instance, there would be outstanding at the completion of the road:

	Authorized	Issued
First Mortgage 6% Bonds	$3,000,000	
Issued for the Following Purposes:		
Roadbed (Construction Company)		$960,000
Locomotives		25,000
Coaches		6,000
Stock	2,000,000	
Issued to:		
Construction Company		1,080,000
Promoter in return for services, including securing of land		500,000

Promotion of An Interurban Electric Road.—Closely related in most respects to the procedure in the promotion of a new steam railroad is that of a new interurban electric railroad. In the period from 1897 to 1907 there was a very extensive development of interurban properties all over the eastern and central states. Enormous amounts of money were sunk in these projects on the expectation that they would revolutionize passenger transportation. The large majority of them were, at first, only partially successful, even though little or no depreciation was charged against earnings. Subsequently a very large proportion actually failed; those which were able to keep out of the hands of receivers were, in the majority of cases, burdened with only a low bonded debt. Only a few have proved in the long run to be financially successful or indeed sufficiently remunerative to have justified their original construction. During and immediately after the Great War the conditions of the interurban lines went from bad to worse, but since 1922 there has been a pronounced improvement.

Ostensibly, the interurban railways in Massachusetts were built according to the most conservative financial plan. The laws covering the building of public utility corporations required that not over half of the cost of construction should be represented by bonds. Apparently, then, the bondholder was assured of a large equity after his bonds, amounting at least to the entire amount of the bonded debt. But this entirely wholesome law was circumvented in a variety of ways. Land was sold by the proprietary interests to the prospective corporation at fictitious prices, organization expenses were fabricated, engineers' and construction companies' building accounts were padded in every conceivable way. As a result of such methods the nominal cost of the property was made to appear twice the actual money cost, or even more. Consequently, in spite of the law, the entire money cost of the road was represented by the par value of the bonds.

In many localities, in Massachusetts as well as other states, interurbans were often built by land speculators who used the road as a means of opening up new tracts of land. By the use of methods described in the preceding paragraph, the speculator was able to shift the entire burden of the road to the shoulders of investing bondholders. The success of the road, however, was indissolubly bound up with that of the land speculation. If this was successful the promoter of the road reaped a rich harvest; if it failed he lost nothing, since the cost of the road had been borne by the bondholders.

In the actual procedure the promotion of the interurban electric company and the steam railway differ but little.[j] Generally speaking, the attempt has been made to use a smaller proportion of bonds in the financial plan of the former. Preferred stocks were used in a larger number of cases; yet such statements are only indicative of general tendencies. The pronounced weakness of the financial plans of nearly all electric railways is the neglect of the importance of depreciation. A road overburdened by bonds might survive for the first half-dozen years, or even first ten years, because new equipment and a new roadbed could be used for a few years without expensive replacements. But sooner or later large renewals become absolutely necessary. Without a depreciation reserve these renewals must be capitalized and the money to pay for them obtained by the sale of more bonds. This course brings the road deeper and deeper into the quagmire of bonded debt. It has only one outcome. All other considerations in the financial plan are therefore subordinate to this one consideration—the fixed charges must be so low that an ample depreciation reserve can be set aside. The form of the financial plan may and will depend largely on local conditions, because the securities must be sold in the local market to local investors, but this principle of a low fixed charge must be observed at all hazards.

---

[j] For discussions of the financial plan of an electric interurban when promotions of this kind were waning, although still undertaken, see *N. Y. Times Annalist*, July 20, 1914. This article summarizes excellently the investigation work always performed by the banker in determining whether or not the prospective interurban line will pay. The following summary is significant: "Some bankers will not engage in a construction proposition if it does not show net earnings equal to two and one-half times the interest charge, because out of this margin must come the payment of interest, the sinking fund charges, and the dividends, if any. Each mile of track should earn a minimum of $5,000 a year. That is the generally accepted figure for interurban roads. At an operating cost of 60 per cent, there would be earned $2,000 a mile. If the construction cost is $25,000 a mile, and the bonded indebtedness a similar amount, the interest charge at 5 per cent would be $1,250 a mile, which would leave $750 a mile to provide for depreciation, possible shrinkage in business, and accidents out of the ordinary. For an interurban road a population of 1,000 per mile in a strip two miles wide on each side of the road, is considered a safe minimum."

The writer's own observation has been that bankers cannot wisely attempt to finance a new promotion of an interurban line which does not promise net earnings in excess of 10 per cent of the cost of construction. Furthermore, they should be more concerned with the volume of possible traffic at either end of the line than this statement would indicate.

CHAPTER VIII

UNDERWRITING SYNDICATES[1]

General Definition of a Syndicate.—In cases where the investment banker purchases issues of stocks and bonds, he seldom assumes the entire responsibility for their sale. He distributes the risks, the responsibilities, and frequently the work of selling the securities among other bankers. To accomplish this he forms an association which lasts merely until a particular issue of securities is sold. Such an association of bankers, bound together for the time being in accordance with a contract executed by them all, is called an underwriting syndicate. It is a mode of mutual insurance against the risks incident to the final distribution of a large body of investment securities and has been ably defined as "an association of persons who guarantee the subscription of the issue either wholly or partially, each guarantor usually accepting the responsibility for so much to the actual contractors."[2] It is an intermediate organization, interpolated between the investment banker, with whom the promoter or corporation co-operates, and the public who ultimately acquire the securities. As a whole, this system has been more carefully developed and occupies a relatively more important position in the financial procedure of England than that of this country.

finition

The underwriting syndicate as we find it today was introduced into the country by Jay Cooke in 1871 in order to assist him in the task of refunding United States bonds.[3] Cooke had noted with considerable care the operation of the French

---

[1] It should be noted from the beginning that this chapter includes the underwriting of securities of established companies as well as those of promotions. See also Stevenson, G., "Underwriting," 25 An. Am. Ac. Soc. Pol. Sci. 61 (1905). For other studies of syndicate underwriting see Galston, Arthur, Security Syndicate Operations (1925); the report of the classic Hughes Investigation—Testimony Taken by the Legislative Insurance Investigating Committee, New York, 1905.

[2] This is distinctly the best definition of the underwriting syndicate the writer has met with. It was given first in an English periodical, 31 Economist 994, and quoted in Cleveland and Powell, Railroad Finance, 24 (1912).

[3] Oberholtzer, E. P., Jay Cooke, II, Financier of the Civil War, 275 (1907).

"syndicate" while on a visit to France and conceived of the use of a similar instrument in distributing American securities here. While used considerably during the period from 1880 to 1890 in the sale of railroad bonds, the American underwriting syndicate did not occasion general note nor become an important step in financial procedure until the second period of industrial promotions. This began in 1897. Since then the underwriting syndicate has been used in large and small undertakings in all fields of promotion. In fact, it may be said without exaggeration that there are no promotions of any considerable size and very few sales of large blocks of securities by corporations that have not used an underwriting syndicate in some form. The form and structure, the legal and moral responsibility, and the general operation of a syndicate organized in connection with the sale of promotion securities may differ in no wise from the corresponding characteristics of one organized to distribute an issue of bonds or stocks of an old-established corporation. The only vital difference between the two types is that the gross profit to both the managers and the syndicate members is conspicuously greater in the promotion syndicates. As the form of the two types is so essentially the same no attempt is made in the present chapter to differentiate between them. The chapter deals, therefore, with underwriting syndicates in general, and is not confined to the field of promotion.

Types of Underwriting Syndicates.—Underwriting syndicates are now of many forms. The differences depend largely on the relative responsibility of the various persons concerned in carrying out their provisions and on the distribution of risk. There are always three such persons or interests concerned and there may be several more. The corporation which issues the securities is usually a passive spectator. Besides this, there is the syndicate manager—usually a banking house—who "gets up" the syndicate by arranging the conditions of purchase from the corporation and the conditions of participation by the

3 parti
a the
1 corp
2 m

others, and finally the participants or subscribers who share among themselves whatever risk is involved in the final distribution of securities.[a] This final distribution may be to the stockholders of the corporation, to one or more retail banking organizations or directly to the public investors. The main point is that the underwriting syndicate is a usual, but not a necessary, intermediate step, of the nature of a lubricant, interpolated between the issue of securities by the corporation and their final absorption by investors and investment institutions.[4]

No two underwriting syndicates are of exactly the same form, and owing to the complex relationship of the various parties of the underwriting agreement, a classification of them is exceedingly difficult. They vary from the large, widely participated in, and very profitable syndicates insuring the sale of stock of great railway systems to their stockholders at very attractive prices, to the loose selling agreements by which small unimportant corporations "peddle out" their securities to small dealers on a commission basis, with a minimum or even contingent responsibility on the part of the dealers. All forms are, however, alike in that the risks incident to the final disposal of the syndicate's securities fall, ostensibly at least, on the shoulders of the syndicate participants. They vary in the method by which this distribution is undertaken.

In order to illustrate the actual operation of different varieties of syndicate agreements, we shall describe three distinct forms. These forms represent conspicuous types. The

---

[a] Several writers have attempted to make rather elaborate and exhaustive classifications of underwriting syndicates. The present writer is not favorably impressed with such classifications because it is difficult to pick out a single characteristic that can be used as a basis. Moreover, the different classes so merge into each other that it would be difficult often to place a particular syndicate agreement in a particular class if it is at all complicated.

---

[4] Detailed underwriting agreements of great variety are accessible to the general reader. A particularly good set representing the organization of a variety of industrial combinations is reproduced in the Report of the Industrial Commission, Vol. XIII (1901). See particularly that covering the promotion of the United States Bobbin and Shuttle Company, 13 U. S. Ind. Com. Rep. 59 (1901).

A brief, clear-cut syndicate agreement for the purchase and "carrying" of a small railroad is given in Gerstenberg, C. W., Materials of Corporation Finance, 405 (1915). For legal aspects see Machen, A. W., Modern Law of Corporations.

special agreements used as illustrations are chosen at random from among a great multitude of syndicate agreements, all differing in important and unimportant details from each other.

Syndicate Guaranteeing Sale of Securities of Well-Known Business.—One type of syndicate is restricted entirely to the sale of securities of well-known, established businesses. The corporation itself offers and sells its securities to its own stockholders, and the syndicate and its participants merely stand in the background, guaranteeing to the corporation a successful sale.

A large corporation, with an extensive and diversified list of stockholders, wishes to sell a block of bonds or stock. The prospective proceeds of this sale have been spent already in new construction or the purchase of new equipment. It is therefore of the utmost importance that the sale should realize the amount anticipated, for otherwise the corporation would be in a serious plight. To insure this success the corporation is willing to pay a small insurance premium. But no one individual or banking house is willing to undertake so large a risk, even though the success of the sale to the stockholders seems reasonably assured. Accordingly a single banking house, ordinarily the one the corporation has had dealings with in the past, agrees to secure the insurance or the underwriting of the successful sale, by distributing the risk among a large number of individuals. For this service in securing the underwriters—participants, they are usually called—the banking house receives a commission directly from the corporation or else some part of the commission allowed for the entire insurance. The banking house becomes the manager of the syndicate and acts throughout the period covered by the transaction as the intermediary between the corporation and the participants. The participants are allowed a commission as compensation for the risk they assume, which may be paid directly by the corporation, or indirectly as part of the premium allowed the managers for securing the underwriting. In case the securities are all sold to the stockholders, as the corporation contemplated, the manager and the participants have merely to collect their commissions. In case only a part of the amount is taken by the stockholders, then the unsold remainder is forced on the participants of the syndicate in the exact proportion that their participation bears to the entire underwriting. They pay the corporation the price at which the security was offered to the stockholders.

Syndicates of this character abound in the financial history of the large railroad and public utility corporations. One illustration will bring out the details. On April 20, 1915, the New York Central Company authorized the issue of $100,000,000 6 per cent convertible bonds to be subscribed for by the stockholders at par, in proportion to the number of their shares. At that time the average interest and rental rate for the New York Central's obligations was a trifle less than 4½ per cent and its general credit was to be estimated at about 5¼ per cent. Consequently the bonds appeared to be attractive. On the other hand, the amount was large; extensive improvements in the New York Terminal property and advances to subsidiary companies, together with the cost of general improvements, had heavily increased the borrowings of the road and might be presumed to have impaired its credit. Railroad credit in general was low owing to the declining earnings of roads throughout the country and to widespread repressive legislation. These facts derived additional importance from the uncertainties due to the Great War then raging. So that, although the offering appeared attractive, it was not altogether certain that the stockholders of the railroad company would avail themselves of their full allotment of bonds. Accordingly, a syndicate was arranged by J. P. Morgan and Company, who acted as managers, in which bankers and banking institutions all over the country became participants. The road paid the managers a commission of 1½ per cent for forming the syndicate and the various participants received 2½ per cent.[b] As a matter of fact, practically the entire issue was absorbed by the stockholders, so that no bonds were left over for the underwriters to assume.

In this form of syndicate it will be observed that neither the managers nor the participants have much to do with arranging the details of the subscriptions and perform no service in the way of actually selling the bonds to the stockholders or the public. In the case noted it was understood, however, although not a part of the agreement, that the subscribing bankers would support the market value of the bonds of the railroad during the life of the syndicate, so that the public shareholders would be led to believe it expedient for them to subscribe to their allotments.[5] On the other hand, participating bankers were not required to offer any of the bonds to their own clients or to be responsible in any way for their future investment value. Each banker merely agreed to take a certain proportion of the bonds offered to the stockholders, provided the latter did not subscribe. As the shareholders took up the entire allotments, the syndicate was not called upon to execute its part of the agreement; yet if, on the contrary, the shareholders had failed to take up any of the bonds, the syndicate members would have taken them. What the railroad company paid was an insurance premium, because it was thus assured of a definite price for its bonds, irrespective of the psychological attitude of its shareholders and the possible contingencies of the security market.[6]

Ordinary Syndicates—Function of Manager.—It will be observed that in this New York Central syndicate the managers

---

[b] No commissions were paid on the amounts of stock directly subscribed for by the directors themselves. This particular limitation is unusual and was not generally known at the time.

---

[5] The necessity of this is excellently illustrated by the support given to the Pennsylvania Railroad in 1903 by the syndicate hurriedly formed to underwrite an offering of new stock when it appeared that the open market price would fall below the subscription price. See Book IV, Chapter IX. Also Cleveland and Powell, Railroad Finance, 25 (1912).

[6] For illustrations of the comparatively insignificant part played by the underwriters in a syndicate of this character, see the correspondence between the Equitable Life Assurance Society, a participant, and J. P. Morgan and Company, the managers of an old Chicago, Burlington and Quincy bond syndicate. Gerstenberg, C. W., Materials of Corporation Finance, 410 (1915).

played an insignificant rôle. This is unusual. In the majority of syndicates not concerned with the underwriting of securities of assured value and popularity, the manager plays a most important part. He negotiates the purchase of the securities from the corporation, arranges all details of the participation, and attends to the sale of the securities. This type of syndicate is used extensively to "carry" the stocks and bonds of new enterprises during the first few years of their existence until their investment strength has been demonstrated. The enterprises are relatively small and consequently their securities would never reach more than a narrow market unless a special campaign is undertaken to distribute them. The syndicate manager conducts such a campaign. He becomes, in a sense, sales manager for the securities.

A Successful Syndicate.—A bond syndicate of a small hydro-electric company illustrates this form.[c] The total actual cost of river rights, flowage basin, the money construction cost of the dam, and two transmission systems to adjacent cities, together with the transforming and distribution systems in these cities, was $1,128,000 in actual money. This entire cost was met by means of the sale to banks of notes indorsed by the investment bankers who proposed to stand back of the enterprise—we will call them Smith and Company. When the development was finished, and the company in actual operation, Smith and Company formed an underwriting syndicate to help carry the financial burden of the enterprise. Before they did this, however, the A. B. Electric Company, as the entire development may be called, issued the following securities:

	Authorized	Issued
First Mortgage Bonds (5%)	$3,000,000	$1,000,000
Preferred Stock (7%)	1,000,000	437,500
Common Stock	10,000,000	4,000,000

Smith and Company then sent to four of their associates, in other cities, an "offer of participation" in the A. B. Electric Company's First Mortgage Bond syndicate. This offer of participation set forth in detail the nature of the enterprise, its financial plan, and the details of the syndicate operation, so far as these could be anticipated. Each of the four answered that they would accept a participation in the syndicate and specified the amounts.

---

[c] As the enterprise was more or less private, the names are omitted or changed. Some of the details too are changed in the interest of simplification, but these variations do not affect the value of the case as an illustration.

Smith and Company subsequently sent to their four associates a formal contract or participation agreement. Such a document is known always as the syndicate agreement. It contained, among others, five provisions to be found in all syndicate agreements of this general character. There was, first, a statement of the purpose for which the syndicate was organized—in this case the acquisition of the $1,000,000 of the first mortgage bonds of the A. B. Electric Company. Secondly, a statement of the price at which the bonds were to be acquired on syndicate account—in this case 80 per cent of par value, in addition to which the syndicate was to receive $1,000,000 par value of the common stock. Thirdly, a clear statement of the terms under which Smith and Company were to manage the syndicate, their compensation and the conditions under which it should be paid—in this case 2 per cent for each bond sold on syndicate account, provided a price of 85 per cent was obtained for the bonds. Fourthly, a statement of the conditions under which the securities acquired by the syndicate should be sold—in this case not less than 85 per cent if sold within 18 months; and if at the end of that time the bonds had not been entirely distributed, the manager agreed to secure the consent of all the underwriters before offering the bonds at a lower price. And lastly, a statement of the amount of subscription or "underwriting" assumed by each of the bankers. In this case the managers themselves participated to the amount of $400,000 of the $1,000,000 of bonds, another banker to $100,000 and the other two to $250,000 each, thus completing the entire amount.

agreem
Provi

1

2

3

4

5

The five elements enumerated are to be found in every underwriting syndicate agreement in which the manager undertakes to superintend the marketing of the securities. In most instances also there are numerous other stipulations which are peculiar to the circumstances of the underwriting. The syndicate agreement may specify, among other things, whether or not the participations may be transferred, at what time and under what conditions payments are to be made by the participating members, whether or not the manager has the right to buy and sell all the syndicate securities or to hypothecate them, whether the syndicate itself or the manager shall bear the direct expenses of the sale if such are incurred, and a host of other details that might lead to dispute.[d]

Distribution of Risk.—The underwriting syndicate just referred to, like every other one, was formed for the purpose of distributing the financial responsibility and the risk of an undertaking. The bankers who stood back of the enterprise did not care to tie up $800,000 of their money or their credit in the bonds of a single enterprise. They therefore asked some of their associates to help them bear the burden of loss or reap the benefit of the profits, in other words, to share the risk. To accomplish this end, the bankers as a group bought the bonds of the company at 80 per cent, a fair price considering that the enterprise had not shown its earning power. The syndicate members hoped to derive a profit from the resale of these same bonds at a higher price as soon as the earning capacity of the company had been fully demonstrated. As a matter of fact, the syndicate actually sold the bonds fourteen months later, at 88½, to a "bond house," or merchandise investment banker with many branch offices and a large selling organization designed to reach small investors. These last actually paid 94 for the bonds some two months afterwards.[e] In addition to the money profit the syndicate realized a considerable profit through the ultimate disposal of its common stock bonus.

---

[d] There have, in the past, been numerous cases of litigation between the managers and the members of underwriting syndicates, although not so many as the number of syndicates and the exhaustive and undefined powers conferred on the managers might lead one to expect.

An Instance of Ill-Success.—Not all syndicates of this type are successful, as the following case shows. In 1902, prominent financial interests in New York promoted a consolidation of real estate building and owning companies, known as the United States Realty and Construction Company. The promoters having been impressed with the speculative enhance-

---

[e] Although it is not pertinent to a study of the underwriting syndicate to review the remainder of the financing of the enterprise, it may be of interest. The $4,000,000 of common stock was distributed as follows: the promoter-engineer, $1,000,000; the bankers directly, $1,000,000; the bankers as bonus for the purchase of the preferred stock, $1,000,000; the underwriting syndicate, $1,000,000. The sale of $1,000,000 of the bonds to the syndicate gave the company $800,000 in money. The bankers themselves, Smith and Company, bought the $437,500 of preferred stock and $1,000,000 of the common stock for $350,000 in money. The proceeds of the sale of these securities gave the company $1,150,000 in money which enabled it to liquidate its entire floating debt of $1,128,000, leaving approximately $32,000 in the treasury. The earnings during the first year of operation amounted to $134,000 gross and $107,000 net. The bond interest required $50,000, leaving $57,000 as surplus available to pay $30,225 in preferred stock dividend. On the strength of this showing, Smith and Company were able to sell to their customers one share of preferred stock and one share of common stock for $100 in money.

The gross profit of the bankers in the various transactions is instructive. It may be arranged in the form of a table. Interest debits and credits are not considered, but they balanced each other approximately, as the discount on the construction notes was carried to the construction account and is included in the net cost of the plant. The common stock had a market valuation of $16 a share when the preferred stock was sold, and it is included in the following computation at that value. It is to be noted that most of the profit remained to the bankers in the form of this common stock, the value of which was entirely dependent on the success of the company. Moreover, although it had an ostensible market value of $16 a share, the bankers could not have liquidated their holdings at this figure.

Value of $1,000,000 common stock received at time of promotion at $16 a share....	$160,000
Compensations as managers of the bond underwriting syndicate, 2%	20,000
Gross profit on underwriting syndicate participation of $400,000, 6½%	26,000
Value of common stock received from the syndicate account, $400,000, at $16 a share	64,000
Gross profit on sale of preferred stock..	87,500
Value of common stock left over after giving customers one share of common with each share of preferred, $562,500 par value, at $16 a share.....................	90,000
Total Gross Profit..	$447,500

From this gross profit would be deducted the bankers' expenses, which were considerable. Furthermore, this was a successful enterprise. Had it proved unsuccessful, the bankers would have stood a chance of losing a part or all of their direct investment of $1,128,000, together with their time, efforts, and most of all, their reputation.

ment of New York realty values wished to obtain a large fund of ready money which could be used in building construction and speculative ventures. Some of the best known and ablest financiers of the country were led to lend their financial and moral support to the enterprise.[7] Mainly through the efforts of James Stillman, of the National City Bank, a syndicate was organized to supply $11,000,000 in money to the new company. The syndicate received $11,000,000 in the preferred stock and $11,000,000 in the common stock of the United States Realty and Construction Company in return for the money. Of the $11,000,000 subscribed by the members of the syndicate, 20 per cent was immediately paid in money, 60 per cent was paid by their notes, and banks arranged to carry the remaining 20 per cent in the form of a loan, the syndicate securities being used as collateral. So popular and, in the past, so profitable had the underwriting of new industrial promotions proved to be, that the right to subscribe to the syndicate was looked upon as a privilege. A financial journal of New York[8] stated that "nearly every important financial interest in this city" subscribed to the syndicate. The number included the Equitable and New York Life Insurance companies, the National City, and other prominent banks and trust companies. Messrs. Hallgarten and Company acted as managers, receiving for their services 2 per cent of the total subscriptions, or $220,000.

Just a year after its formation the syndicate was liquidated. During the period of its duration the managers had bought and sold both the preferred and common stocks of the United States Realty and Construction Company and had collected approximately $500,000 in dividends. As a result of these operations the subscribers to the syndicate received for each $1,000 of original subscription, $1,155 par value in preferred stock, $702 par value in common stock, and $16.66 in money. These securities had, on the day the syndicate was liquidated, a value, including the money, of $523.09 for each $1,000 original subscription,[9] or approximately one-half what had been subscribed the year before. If the interest on the subscription should be deducted, the returns to the members of the syndicate were actually less than one-half the original subscription.

---

[7] Of this particular company, one of the New York newspapers commented: "Realty stock was set afloat with one of the most extraordinary composite board of directors, in point of character, that was ever named even in those days when eminent bankers and vulgar gamblers grew used to sitting harmoniously side by side in the committee of new corporations." *New York Evening Post,* May 28, 1904.

For details of the promotion and subsequent history of the company see Dewing, A. S., Corporate Promotion and Reorganization, Chap. IX (1914).

[8] 75 Chron. 294.

The Manager's Part.—An important distinction between the New York Central bond form of underwriting syndicate and that illustrated by the small, private hydro-electric development or the widely known stock syndicate of the United States Realty and Construction Company, lies in the amount of work and responsibility required of the manager. In the first case the manager merely arranged the syndicate, allotted the participations, and subsequently distributed the profits or assessed the losses. He had nothing to do with the selling, although it frequently happens in such cases that the manager undertakes to support the corporation's securities on the stock exchange while the new issue is being subscribed by the stockholders. This service, however, must be looked upon as a protection for the syndicate rather than a service to the corporation. In the second type the manager has actual control over the sale of securities. The corporation takes no trouble to assure their sale and the participating subscribers leave the entire matter to the manager. Except in regard to certain provisions of the underwriting agreement governing price, the manager has absolute and untrammeled power to sell the securities as he deems best. Frequently, almost generally, the participants know nothing of what is being done until the manager has completed his negotiations covering the sale of the securities. At all events, they remain inactive until the syndicate is dissolved either by the sale of its securities or their final distribution among the subscribers in case the manager cannot sell them.

---

[9] $36 a share for the preferred stock and $6.50 a share for the common stock.

3 **Selling Syndicates.**—In another, a third, type of syndicate the entire work of selling is assumed by the participating subscribers themselves. This is the usual means of distributing small issues among investment banking houses, each one of which is expected to exert itself in selling the securities among its own clients. And it is from membership in these "selling syndicates," as they are sometimes called, that the small investment bankers all over the country get the securities they offer their customers.[f] In detail, this type is excellently illustrated by

---

[f] The following letter is a typical form of an "offer of participation" sent by the wholesaler, who acts as the syndicate manager, to small dealers all over the country:

Confidential

MONONGAHELA VALLEY TRACTION COMPANY
General Mortgage 7% Five-Year Gold Bonds

New York, August 30, 1918.

MESSRS. HOPKINS, ELDRIDGE & COMPANY
Philadelphia, Penn.

Dear Sir:

We and our associates are arranging the purchase of $5,500,000 MONONGAHELA VALLEY TRACTION COMPANY General Mortgage 7% Five-Year Gold Bonds, dated July 1, 1918, and due July 1, 1923, and we are forming a selling syndicate in which we shall participate, to take over these Bonds at 94 and accrued interest, when, as and if issued and received by us. It is expected that definitive bonds will be ready for delivery about September 12th.

The list offering price of these Bonds, subject to change at our discretion without notice, shall be 97 and accrued interest. Syndicate members will be allowed a selling commission of 1½% of their confirmed sales, out of which selling commission they may allow ¼ of 1% to financial institutions and ½ of 1% to other dealers and banks with bona fide bond departments. You may begin offering bonds on Tuesday, September 3, 1918.

All sales shall be subject to confirmation by us and for syndicate account.

Members shall share pro rata in the profits or losses, after allowing for syndicate expenses. The syndicate will expire at the close of business October 31, 1918, unless sooner terminated by us. We reserve the right to extend the syndicate an additional period or periods, such extension not to exceed in the aggregate 30 days.

We shall have sole direction of the syndicate, with full powers, and will make no charge for our service in this connection, as the price above named includes a profit to us. We may, in our discretion, purchase and resell bonds for syndicate account in such amounts and at such prices as we may deem advisable, and should any bonds remain unsold upon the termination of the syndicate, we may sell such bonds upon such terms as we the bond selling syndicate of the Western Light and Power Company. This company was the result of a reorganization of

---

deem advisable, to any person or syndicate, and we may participate in any such purchase.

We enclose herewith several preliminary circulars for your use and will provide promptly as many more as you may need, carrying your imprint, if you will advise us.

We are pleased to offer you a participation of $50,000. This participation shall not be transferred or subdivided.

Kindly advise us of the acceptance of your participation on the terms stated, by wire, and confirm by letter. We reserve the right to close participation list at any time without notice.

Yours very truly,
The National City Company,
By H. B. Baker,
Vice-President.

The following example illustrates a more recent type of selling syndicate:

Confidential

Phillips, Codman & Co.
64 Broadway, New York
Selling Group Managers

40,000 Shares

The Gas & Electric Corporation
(A Delaware Corporation)

$7 Cumulative Preferred Stock, Class A
Non-Callable

Selling Group

New York, July 27, 1925.

Edward M. Perrin & Co.,
100 South La Salle St.,
Chicago, Ill.

Dear Sirs:

We (Phillips, Codman & Co., East & Co., Potter & Ricker, and our associates) have agreed to purchase 40,000 shares of $7 Cumulative Preferred Stock, Class A, of no par value, of The Gas & Electric Corporation, a Delaware corporation, when, as and if issued and accepted by us and subject to the approval of our Counsel. The issuance of this stock is provided for under the "Plan and Agreement to Retire the Bonded Indebtedness and Improve the Capital Structure of The Gas & Electric Corporation, dated July 1, 1925," which plan has been declared operative by the Committee named therein. This issue is more fully described in the enclosed circular.

We are forming a Selling Group in which we may be included, and of which Phillips, Codman & Co. shall be Managers, to offer these 40,000 shares of stock to the public upon the terms herein stated.

This stock will be offered for public subscription, subject to allotment, the old Northern Colorado Power Company in which the Westinghouse interests had a considerable amount of money

---

at $97.50 and accrued dividend per share, when, as and if issued and accepted by us and subject to the approval of our counsel. Our public advertisements of this issue will appear on Wednesday, July 29, 1925, and Thursday, July 30, 1925. Following our advertisements, Group Members may advertise at their own expense. A reasonable supply of circulars will be furnished if you will advise Phillips, Codman & Co., 64 Broadway, New York City, promptly of your requirements.

Subscription books will be opened at the office of Phillips, Codman & Co., Selling Group Managers, 64 Broadway, New York City, on Thursday, July 30, 1925, at two o'clock P. M., Eastern Standard Time, and may be closed at any time thereafter in the discretion of the Managers and without notice. We reserve the right to reject any subscriptions in whole or in part and to allot in our uncontrolled discretion.

Unless sooner terminated by the Managers, this Selling Group will terminate at the close of business, September 24, 1925, but may be extended by the Managers for a period or periods not exceeding in the aggregate thirty days.

The commission allowed members of this Selling Group will be $3.50 per share on shares allotted to and paid for by members, subject to a deduction for expenses not to exceed 25 cents per share. Members may reallow $.50 per share of the commission to dealers and financial institutions only. No other commissions or concessions may be reallowed by members. Commissions will be payable as follows: $1.50 per share upon delivery of the stock, to be deducted from the purchase price and the balance upon the termination of the Selling Group. We reserve the right to change the selling terms and conditions, including the retail offering price and selling commission on one day's notice, to members of the Selling Group.

All shares allotted must be paid for by members at the price of $96 and accrued dividend per share. Each member will be responsible during the life of the Selling Group for shares delivered to him, and agrees to take up from the Selling Group Managers (when called upon) at the repurchase cost to the Managers, any shares which had been sold to such member originally and which may be, during the life of the Selling Group, repurchased by the Managers in the market at or below the original offering price, namely, $97.50 and accrued dividend per share, or an equivalent flat price. We may, in our discretion, retain any shares so repurchased, in which event we may cancel or require the return of the selling commission on any or all such shares so repurchased and retained by us.

Other than your obligation to take up and pay for stock confirmed to you, and your responsibility for repurchased stock as mentioned above, you will have no liability in this Selling Group, but members of this Group will be governed by the conditions above set forth until the Selling Group is terminated.

The Managers shall not be under any liability in respect to the validity or value of the shares or the form or the representations contained in, or the validity of, any letter, circulars, or the stock certificates, agreement or other instruments executed by the Company or by others, nor for the delivery of certificates of stock, nor for the performance by the Company or others of any agreement on its or their part, nor shall they be liable under any of the provisions of this agreement or in or for any matter connected therewith, except want of good faith, and no obligation not expressly assumed by them by this agreement shall be implied therefrom.

Subscriptions should be reported promptly at the office of Phillips, Codman & Co., 64 Broadway, New York City, telephone Rector 1111, and tied up. The reorganized company issued $2,100,000 first mortgage ten-year 5 per cent bonds on May 1, 1915. No attempt was made to sell these bonds until the late winter, when the banking house of William Morris Imbrie and Company arranged and became the managers of a selling syndicate organized to distribute the bonds among investors. This syndicate agreement, reproduced in the form of a letter given on the next page, contains features unknown in syndicate underwriting until recently. One of the most important of these

---

those entered by telegraph or telephone must be confirmed immediately by letter stating that such confirmation is of previous telegraphic or telephonic advices.

Temporary stock certificates will be ready for delivery and payment in New York funds will be due at the office of Phillips, Codman & Co., No. 64 Broadway, New York City, on August 6, 1925, unless some other date is designated by the Managers.

All notices hereunder to a member shall be duly given if mailed or telegraphed to said member, at the address of such member as above set forth, or in the acceptance of such member hereof.

The Managers agree to cause to be published a "State Notice" respecting this stock in the form required by Subdivision 2 of Section 359E of the General Business Law of New York.

If you wish to join this Selling Group under the terms and conditions of this letter, please complete and sign, in the place provided, the form at the foot of the enclosed duplicate, stating the number of shares, for which you wish to subscribe, and send such duplicate to Phillips, Codman & Co., Selling Group Managers, 64 Broadway, New York City, at your earliest convenience. This original letter should be preserved for your record.

Yours very truly,
PHILLIPS, CODMAN & CO.,
EAST & CO.,
POTTER & RICKER.
By PHILLIPS, CODMAN & CO.
Selling Group Managers.

PHILLIPS, CODMAN & CO.,
Selling Group Managers,
64 Broadway, New York.

July..........,1925.

Dear Sirs:

We hereby subscribe for................shares of The Gas & Electric Corporation $7 Cumulative Preferred Stock, Class A, in the Selling Group which you are forming as set forth in your foregoing letter to us dated July 27, 1925, subject to the terms and conditions set forth in your said letter to which we agree. We agree to accept such lesser amount as you may allot us.

Very truly yours,

Name ....

Address ....
(Address to which all notices should be sent)

new features was the privilege extended to the participants to buy the bonds outright of the syndicate, and extinguish thereby their liability.

William Morris Imbrie and Company
61 Broadway
New York

$2,100,000

WESTERN LIGHT AND POWER COMPANY FIRST MORTGAGE FIVE PER CENT TEN-YEAR GOLD BOND SYNDICATE

Gentlemen:

We confirm your participation of.........bonds in the above syndicate at the price of 87 and interest. This syndicate will expire December 28, 1915, unless sooner terminated by ourselves as Syndicate Managers, all the bonds having been sold. The Syndicate Managers reserve the right to extend the syndicate for sixty (60) days.

The offering price of the bonds will be 92½ and interest. Syndicate members will be allowed 2½ per cent commission on sales made for syndicate account. A commission of 1 per cent may be allowed to investment dealers or banks with bona fide bond departments, this commission to be a part of the 2½ per cent commission allowed to participants. We reserve the right, however, to sell large blocks at a very large concession from this figure, and would be glad to have you advise us if you have anyone interested in such blocks. Participants shall be responsible for their numbers during the life of the syndicate, and the Syndicate Managers reserve the right to make a market on the bid side of 91½ per cent during the life of the syndicate.

Each syndicate member as he sells bonds for the account of the syndicate reduces his syndicate liability to that extent. In other words, a participant will not be called upon to take up at the termination of the syndicate unsold bonds to an extent greater than the difference between the amount of his participation and the bonds sold by him. Arrangements have been made for the carrying of these bonds during the life of the syndicate.

Definitive bonds are now ready for delivery. As soon as proof circulars are received, a quantity of same will be forwarded to you. Kindly advise us how many circulars you will need with your imprint thereon, and forward us your imprint showing the way you desire them printed.

General circularization will take place on or about Monday night, November 29, and the bonds will be offered publicly by advertisement on or about Wednesday, December 8. These dates are subject to change, and you will be advised definitely later with reference to them.

Syndicate expenses will be ratably shared by the participants, but in no event will they exceed a quarter of 1 per cent of the par value of the bonds syndicated.

If you care to withdraw your participation, you are at liberty to do so at 87¼, which is the syndicate price plus ¼ per cent for syndicate commissions. It is understood, however, that in case of withdrawal you will still keep to all of the selling terms of the syndicate, the same as though your bonds were being carried for syndicate accounts.

Kindly confirm your acceptance of the above participation, and advise us how many, if any, of these bonds you wish to take up at the present time.

Yours very truly,

Offer of participation in this syndicate was made by the following letter:

November 28, 1915.

Messrs. Brown, Green and Company,
New Orleans, Louisiana.

Dear Sirs:

As discussed with your Mr. Green over the telephone this morning, we are forming a syndicate on Western Light & Power First Mortgage 5% Bonds of 1925, and enclose herewith a confidential syndicate memorandum, together with a copy of the syndicate agreement concerning this issue. We offer you a participation of $250,000 of this issue according to the terms set forth in the agreement enclosed herewith, and we might consider giving you the exclusive southern territory, excepting Messrs. Jones, Seagraves and Company, who are already in the business with us. For an amount of participation less than the one mentioned, we would not care to give you the exclusive right to offer this issue in that section.

We wish to suggest in connection with the terms mentioned in the Syndicate Agreement, that in some cases we have allowed participants to withdraw their total allotment immediately upon the payment of 87¼ and interest for the bonds, thus being able to immediately realize their entire profit. We have added in these cases to the price of 87 mentioned in the Agreement ¼ of 1%, as being a fair amount for syndicate expenses. We merely mention this in passing, since, if you are interested in this business, it is an item you will undoubtedly care to know about.

You will find, after reading the memorandum which we are sending you, that we are offering you a participation in some business in a first mortgage bond issue with only 9½ years to run, which will be retailed to the public at 92½, or a 6.05% basis, a bond which is a mortgage on a property earning twice the interest requirements, and operated by the Electric Properties Company.

Westinghouse, Church, Kerr and Company, well-known engineers, have made an exhaustive report on this property for us, the books and accounts have been audited by Messrs. Price, Waterhouse and Company, and the legality of the issue has been passed upon by Messrs. Cravath and Henderson.

We feel that a first mortgage bond earning over twice its interest charges, which can be offered to the public on better than a 6% basis, with a profit of 5½ points to the selling syndicate, is particularly attractive business from all standpoints, and we shall be glad to have you come along with us. The business is new, the bonds never having been offered, and we are beginning to form our syndicate.

We have purposely offered our syndicate participations in this business in the west before approaching our New York friends, since this is a western issue, and we are pleased to report that we have confirmed participations in Chicago to the Bond Department of one of the largest National Banks, two of the better class of local bond houses, and, in addition, two of the large Trust Companies are actively negotiating and will undoubtedly come in. We have in Colorado three of the best dealers, and we are today negotiating with prominent dealers in Cleveland, St. Louis, and Milwaukee.

We therefore anticipate that this issue of bonds will move rapidly, and request that if it is of interest to you, you communicate with our Mr. ——— over the telephone and advise us as to what interest you may have in the matter at your early convenience.

We are dear sirs,

Yours very truly,

Features of Selling Syndicates.—From this statement certain pertinent facts are to be gleaned. In the first place, the emphasis is laid especially on the efforts which the participants will employ in order to sell the bonds to their clients. To stimulate this, the manager allows each subscriber a special "selling commission" of 2½ per cent, which represents nearly half the margin between the syndicate's price of 87 and the public's price of 92½. The manager estimated that the direct expenses of the syndicate would amount to ¼ of 1 per cent, so that one may infer that practically one-half of the margin between the buying and the selling price represented pure insurance and the other half compensation for the services of selling. An explicit admission of the latter element was unknown in the syndicates of the types already cited. For this reason, the illustration now given represents, in a typical fashion, what may be called a selling syndicate. It is to be regarded as a transition form between the true insurance functions of syndicate underwriting and the ordinary selling function assumed by the retail banker. There are, as well, many syndicates which are, in form, intermediate between the older type of strict "insurance" syndicate and this type of the modern selling syndicate. In such cases a very small selling commission—perhaps ¼ of 1 per cent—is allowed, and bankers are encouraged to secure orders for the syndicate account.

The emphasis, in the agreement just discussed in detail, on the selling function of the bankers who participated, rather than upon its insurance feature, is further emphasized by the other two points not found in the syndicate agreements previously illustrated. It will be observed, in the first place, that any participant is allowed to withdraw—that is, buy outright—his total subscription at the price of 87¼, or the syndicate price including its expenses. If the participant elects to exercise this privilege he will be relieved of all further syndicate responsibility. He will have merely bought the bonds outright in the same manner that he might have bought bonds of any wholesale dealer and his position cannot be deemed that of an underwriter. This privilege of withdrawal or outright purchase has been attached to many syndicate agreements of late, especially those in which banks, trust companies, and large investors are allowed participation.[g] The second feature which is characteristic of syndicates organized primarily for selling, rather than insurance, is the clause of the agreement which specifies that the underwriters are not responsible, at the liquidation or the expiration of the syndicate, for more than the difference between the participation and their individual sales. In other words, the subscribers will never be required to sell or otherwise assume more than the amount of their participation. This clause is inserted for the reason that many small banking houses, particularly those with limited capital, and a restricted banking credit are unwilling to participate in an underwriting in which they may be required to assume at the expiration of the syndicate an unknown volume of unsold securities. They will participate only if allowed to limit their total responsibility to the amount of their subscription.[h]

Essential Service of Syndicate—Assumption of Risk.—In spite of the difference in actual detail, all these cases show clearly that the assumption of the risks incident to the sale of securities is the fundamental and essential characteristic of all underwriting syndicates. It is their social and economic service as well. Participated in, for the most part, by banking houses controlled by men conversant with financial values, who gauge more accurately than the public the worth of new enterprises, there is less likelihood of industrial failure and waste of public funds than if it were attempted to distribute the securities directly to the public.

---

[g] For example, in the great selling syndicate organized in the summer of 1915, for distributing $500,000,000 Anglo-French bonds, the public were allowed to participate in the underwriting and to withdraw their bonds at the underwriting price. Such withdrawal canceled the underwriting responsibility, so that it amounted to little less than the direct sale to the public at a lower price than that subsequently asked.

[h] Instances in which participants are taken into syndicates without being required to assume at least some risk, the participants being allowed the full syndicate profit as a mere selling commission, were practically unknown until recently. They do occur, however. In December, 1917, after the Second Liberty Bond offering, when wholesale banking houses were experiencing extreme difficulty in selling bond issues or organizing selling syndicates after the usual plan, smaller bankers were offered "participations" on the distinct understanding that they would be required to take up bonds only to the amount of their sales. This offer was made by very strong banking houses on excellent underwritings, such was the extreme lethargy of the investment market.

Incidental to the assumption of risk is the task of supplying money with which to carry the securities until such time as it is expedient to sell them. Generally, except when the syndicate acts for large corporations as an insurance medium only, its manager must pay for the securities before they can be marketed, either wholly or in part. A considerable sum of money is usually tied up. Sometimes the corporation selling them will lend its credit, sometimes the manager will use his own credit, but much more frequently the manager seeks to negotiate loans with a trust company which expects a "commission," or an abnormally high rate of interest—whichever way the transaction is regarded—for its help. These are known as syndicate loans.[1] Seldom is the trust company willing to advance the entire amount required by the syndicate to complete its purchase of securities, but through the aid of these loans it is frequently possible for the manager to avoid tying up his own funds or those of the participants to the extent of more than a quarter of the total money involved.

---

[1] A good illustration in connection with early industrial promotions, easily accessible to students of the subject, is the loan of the Industrial Trust Company of Providence, Rhode Island, on the syndicate account of the United States Bobbin and Shuttle Company, which provides, among other things:

"That, whereas the Trust Company, at the request of the underwriters, and in part consideration of the execution and delivery of these presents and of the counterparts hereof, is about to advance to the underwriters, or their nominee, the sum of $500,000 upon the terms and conditions hereinafter set forth and upon security of the collateral hereinafter mentioned and of the undertakings of the several underwriters hereinafter contained.

"Now, therefore, the parties hereof, in consideration of the premises, and each in consideration of the agreements of the other herein contained, do hereby and severally agree in manner following, to wit:

"First. The Trust Company will from time to time, on demand, on and after the first day of August, A. D. 1899, and in amounts as requested, pay said sum of $500,000 to Charles R. Flint, of the city, county and state of New York, or his nominee; provided, however, that before the Trust Company shall be required to make any such payment there shall have been deposited with the Trust Company the sum of $250,000 in cash, to be applied as a part of said sum of $500,000; and provided, also, that there shall have been paid to the Trust Company, the commission and compensation hereinafter mentioned and the expenses incidental to the preparation and execution of this agreement, including fees of counsel.

"Second. The Trust Company shall receive interest upon said loan of $500,000 from the first day of August, A. D. 1899, at the rate of 6 per cent per annum, payable semi-annually, and shall receive when and as provided in paragraph first hereof, as a commission and as compensation for its services hereunder, a sum equal to 3 per cent upon said sum of $500,000."

Article fifth of the agreement provided that the collateral for the above loan should be $300,000 par value of the 6 per cent first mortgage bonds, $200,000 par value of the 7 per cent preferred stock and $350,000

Syndicates and Reorganization.—Probably the greatest service to industry that the underwriting syndicate performs comes at the time of the financial distress of a corporation, or at the time following its reorganization. At such crises, large amounts of capital are required in order to enable the corporation to avoid threatened bankruptcy, and the public investor, whose opinion of the credit of a corporation is largely determined by hearsay, is reluctant to contribute capital when the little that he knows of the corporation is not to its advantage. The assets of a corporation may be liberally sufficient to protect the new securities to be issued and yet these securities be unsalable. The financial world has a vivid, albeit somewhat short, memory. Yet if succor is not immediately forthcoming a corporation in distress would surely fail. At such times a banking house will carry on a thorough investigation, and finally underwrite the new securities, and the willingness of the banking house to lend its good name to the corporation will do much to redeem its credit. Especially important is this aid at the time of the reorganization of a large corporation, known generally to have failed because of inherent weakness.

Innumerable examples exist which illustrate the principle that only through the financial help and implied backing of an underwriting syndicate has it been possible for an embarrassed corporation, suffering from poor credit, to avoid bankruptcy. In 1899, the American Malting Company, for example—through an unfortunate policy on the part of its directors in paying out unearned dividends and tying up its fixed capital in

---

par value of the common stock of the "to be organized" United States Bobbin and Shuttle Company.[10]

[10] 13 U. S. Ind. Com. Rep. 63 (1901).

unproductive assets—was threatened with failure. So imminent was the crisis that the directors passed a resolution that "notes amounting to several hundred thousand dollars were being pressed for payment, and unless provided for, would go to protest." The misfortunes of the American Malting Company were widely heralded, and the market price of its preferred and common stocks depreciated to low levels on the New York Stock Exchange. At such a time no investor would think seriously of buying its securities, and yet at such a time the American Malting Company had imperative need of new capital. In the crisis J. P. Morgan and Company underwrote $4,000,000 of new first mortgage bonds for a commission of 5 per cent, or $200,000. Most of these bonds were bought in by the directors, relatively few by the small stockholders, and practically none by the public. With this aid, however, the company was able to thoroughly rehabilitate its credit.[11]

Underwriting syndicates at the time of the reorganization of great railway systems are particularly necessary. At the time the old Union Pacific Railway passed into the hands of receivers in 1893, the road owed $52,000,000 to the Government, and was in such a dilapidated condition that little or no revenue could be expected from it until entirely rebuilt. The public investors in New England, where the railroad had been previously controlled, who had invested heavily in the undertaking through the advice of Charles Francis Adams, were in no mood to invest more, regarding it as foolish to send good money after bad. In the emergency a New York firm of bankers formed a syndicate which supplied the road with $15,000,000 and undertook the entire rehabilitation of the system.[12]

Syndicate Subscribers.—The people who become subscribers to underwriting syndicates will vary according to circumstances. In the United States, public investors are not ordinarily invited by the manager of a syndicate to become participants. There is the feeling among bankers that investors should be required to pay the full retail price for their securities, as they would for any other commodity. There is also the danger that a list of syndicate subscribers made up of public investors might not be as reliable as a list made up of bankers engaged in business. There would be greater danger of the private individual "backing down" if it developed that the syndicate would suffer a loss.[j] Bankers know that this would jeopardize but little the credit of the private party; it would, however, involve investment bankers, sooner or later, in business suicide. Knowing this, bankers show a disinclination to accept subscriptions from individuals, whereas they will accept them from other bankers, even though of less financial strength. In England, however, and on the Continent, it is customary for individuals to take small shares in underwriting syndicates. The practice is increasing in extent in this country, but the individual underwriters in any syndicate remain few compared with the bankers, banks, and insurance companies. During the period of the promotion of industrial combinations it was common for the large life insurance companies to become members of syndicates.[13] The practice was and is unquestionably bad, because the "reserves" are held for investment and not speculation. It is a relatively common thing for trust companies to become participants in underwriting syndicates, their purpose be-

---

[11] For further details of the American Malting Company's history, see Dewing, A. S., Corporate Promotions and Reorganizations, Chap. XI (1914).

[12] For further discussion of underwriting syndicates at time of reorganization, see Book V, Chapter V; also summary in Daggett, S., Railroad Reorganization, 345 (1908).

---

[j] In case a participant does not meet his subscription he may be sued by the manager for breach of contract, but this is an unpleasant task, and is seldom resorted to. In actual practice the man who refuses to live up to his underwriting contract is usually not pressed, but is invariably refused subsequent opportunities to participate in other syndicates.

A good example of the difficulty of enforcing underwriting contracts in the case of private individuals is found in the unfortunate French underwriting to the United States Shipbuilding Syndicate. In that case upwards of one-half of the underwriting for $9,000,000 of the bonds of the enterprise was taken by private individuals in France. The bonds were offered to the American public, who declined their purchase. The company had therefore merely its underwriters to depend upon, but the men in France refused to live up to their contract, whereas the bankers and banking houses in this country responded almost universally.

---

[13] Further details on this phase of the subject can be gleaned from the Hughes Investigation into Insurance Companies. The Equitable Life Assurance Society appears to have been particularly prone to indulge in this vicious practice.

ing either to acquire the bonds at less than the market price, or else to derive a profit through the resale to the public. While such a practice is not in accord with standards of conservative banking, it is less objectionable than in the case of life insurance companies. Certain New England trustees representing large interests also have taken upon themselves the practice of participating in syndicates, but this has been due more to their desire to obtain bonds at as cheap prices as possible than to a hope of obtaining an underwriting profit.

The underwriting of the great Anglo-French loan of $500,000,000 was an exceptional case in that practically every private investor in the United States was allowed an opportunity to participate in the syndicate and every investor of importance was directly solicited by the managers or the managers' agents acting as managers of subsyndicates. And, moreover, the private investor, no matter how small his subscription, was allowed exactly the same terms as the largest banker—96 per cent with guaranteed syndicate expenses not to exceed ¼ per cent. The bonds were subsequently sold on syndicate account by the large participating bankers for 98. In this instance the subscriptions by the small private investors were much fewer than would have been expected from the publicity attached to the issue and from the widely advertised strength of the bonds. Many investors, who neglected their opportunity to underwrite the bonds at 96 plus ¼ subsequently bought them of the syndicate at 98. Although the bond market had subsequently improved, it is probable that ignorance of underwriting methods deterred the great majority of investors from participating in the syndicate.

Syndicate Profits.—The profit derived by bankers through syndicate underwriting is difficult to determine, as their compensation or commission is almost entirely in the form of a premium on the risk they assume.[k] Their profits through successful syndicates are often almost, if not entirely, canceled by losses from unsuccessful underwritings. During the first few years of the period of industrial combination, from 1897 until about 1901, the majority of the large underwritings of these combinations were highly profitable. Bankers, private financiers, insurance companies, and trust companies were eager for allotments. Every experience indicated that the syndicate operations were universally profitable, because the securities found a ready market among an investing public which had not yet sustained losses in these industrial promotions.[14] But beginning in the early part of 1902, and for the next year or two, almost all underwritings of this character involved the participants in losses.[15] Exactly the situation was present in the boom period of the Great War, to be followed by a period of very pronounced losses after the business reversion of 1920.[1] These two periods, the earlier period of great

---

[k] A thoroughly typical illustration of the profits involved and the distribution of the risk is shown by the large syndicate underwriting of the bonds of the Interborough Rapid Transit Company. When the matter was

---

under discussion, "J. P. Morgan & Co. issued a statement setting forth the facts, (a) that the firm and its immediate associates agreed to buy $170,000,000 bonds from the Interborough Rapid Transit Company at 93½; (b) that a large international syndicate had been formed to buy the bonds from the firm and associates at 96; (c) that the profit of J. P. Morgan & Co. and associates for taking the initial risk was 2½ per cent, namely, the difference between 93½ and 96; (d) that the firm itself was a member of the international syndicate, and (e) that the syndicate will have to get its profit by selling the bonds for more than 96." New York Times Annalist, Feb. 3, 1913. The bonds were sold by the syndicate to the public for 98½.

[1] Quite frequently, especially if the promotion occurs at a time when the business becomes immediately very profitable, the indirect profits of common stock bonuses, special sales, and options are very large. This is well illustrated by the rehabilitation, during the Great War, of an old-established, but somewhat decadent, packing house. The Sulzberger Company had outstanding in the early part of 1916, $8,100,000 of debenture bonds, which matured June 1, 1916. The money market was unfavorable, making the refunding of these notes difficult, the company needed more money to carry on its business owing to the increased cost of raw materials, and, besides, the company had lacked aggressive management. A group of New York banking houses agreed in March, 1916, to assume responsibility for the company and supply these defects, provided the group was allowed a syndicate profit on the refinancing and a substantial interest in the new company at a bargain price.

The original contract was undertaken by the Guaranty Trust Company, profit in the underwriting of industrial securities and the later period of equally pronounced losses, are both somewhat un-

---

[14] For extended discussion of profits of these early promotion underwriting syndicates, see Dewing, A. S., Corporate Promotions and Reorganizations, Chap. XX (1914).

[15] This was true in several of the cases cited in the text. The original United States Shipbuilding Syndicate and the subsequent Sheldon Syndicate, formed to take over the French underwriting, were finally closed with heavy losses to the subscribers. This was in 1902 and 1903. In the same year the United States Realty and Construction Company Syndicate was formed, which was closed the following year at a loss of over $5,000,000.

William Salomon and Company, Hallgarten and Company, Kuhn, Loeb and Company and Chase National Bank. These banking houses agreed to buy $12,500,000 bonds at 90 and $2,500,000 at 95. The Sulzbergers who owned the entire $20,000,000 common stock were to sell to the bankers voting trust certificates representing common stock of $10,775,000 par value for $601,500, or $5.58 per share. Thomas E. Wilson, former president of Morris and Company, was to receive in part consideration for undertaking the management of the company $1,500,000 voting trust certificates and an option to buy $3,500,000 more at $10 a share within five years. Of the $1,500,000 stock to go to Thomas E. Wilson, one-half was to be contributed by the Sulzbergers and one-half by the bankers; of the option stock, $475,000 was to be contributed by the Sulzbergers.

In a nutshell, therefore, the contract provided as follows:

Bankers buy:	
$12,500,000 bonds at 90%....................	$11,250,000
$2,500,000 bonds at 95%....................	2,375,000
$10,775,000 common stock at 5.58%............	601,500
Total money obligations of bankers........	$14,226,500

The immediate common stock distribution was as follows:

Bankers give up $750,000 to Thomas E. Wilson.
Sulzbergers give up $750,000 to Thomas E. Wilson.
Bankers agree to sell $3,025,000 to Thomas E. Wilson at $10 a share.
Sulzbergers agree to sell $475,000 to Thomas E. Wilson at $10 a share.

The business was then renamed Wilson and Company. The bankers then formed a selling syndicate which purchased the bonds of themselves—$12,500,000 at 95 and $2,500,000 at 96.

We may now form some estimate of the profits realized by the various parties in this somewhat complicated transaction. Let us consider first the direct bankers' gross profit made by the New York group of bankers. Allowing for the concession of a $3,000,000 interest in the bonds to Chicago bankers, the profits to the New York group from the bond transaction were $545,000, or $109,000 for each participant. The bonds were offered to the public at 100.

The indirect profits on the common stock are more difficult to compute. While the New York group of bankers started with 107,750 shares of the common stock, after the various obligations of the contract had been carried out and an interest given to the Illinois Trust Company of Chicago, the syndicate had left 63,017 shares, representing a cost to them of approximately $230,000. This is computed as follows:

Bought $10,775,000 common for...................	$601,500
Give up $750,000 to Wilson, leaving $10,025,000	
Sell $1,000,000 to Illinois Trust Company for $100,000, leaving $9,025,000 and reducing cost to.....	$501,500
Sell $3,025,000 to Wilson at $10 (less $301,700 contributed by Illinois Trust) equals $2,723,300 at $10, leaving $6,301,700 stock on hand and reducing cost to..................................	$229,170

The first offering of the common stock to the public was made about November 1, 1916, through Eugene Meyer, Jr. and Company. This firm purchased from the Sulzberger family 41,000 shares at $50 per share. It also purchased from the New York banking group 20,000 shares at $50.75 per share and 7,000 shares from Thomas E. Wilson at $54 a share.

After their sale to Eugene Meyer, Jr., and Company the New York bankers had a money profit in their stock of $785,830 ($1,015,000 received usual. Under general circumstances, syndicates are able to carry their risks at a slight profit, but it should be remembered that, under ordinary circumstances, extraordinary profits in one case are counterbalanced by marked losses in other cases.[m]

Syndicating a Form of Insurance.—Syndicate underwriting is thus a branch of the insurance business, and may be conducted with profit and wisdom only by persons of wide experience in this particular kind of risk. The tendency, therefore, for private investors to become underwriters is to be discouraged. They have neither the opportunity for the distribution of their risks over a large number of enterprises, nor have they the experience, wisdom, or knowledge of large business undertakings to lead them to make an intelligent selection of their risks. Furthermore, as enterprises are financed at the present time, it too generally happens that the private investors are offered participations in underwritings only after the bankers have re-

---

from the Meyer firm, less $229,170, the net cost of all the stock) and 43,017 shares. At the time of the Meyer sale these shares were worth at least $50 a share, or $2,150,850. January 1, 1919, the stock was quoted on the New York Stock Exchange at $73 a share.

With the proceeds from the sale of 7,000 shares to the Meyer firm Thomas E. Wilson paid for the 35,000 shares he held under option at $10 a share from the bankers and the Sulzbergers. This left him 43,000 shares which cost him nothing, but which had, at the time of the Meyer transaction a value of at least $2,150,000 and which were appraised by the New York Stock Exchange on January 1, 1919, at $3,140,000.

It should be noted, however, that the manufacturing profits, upon which the success of this somewhat unusual case depended, quite disappeared after the reversion of 1920. In 1924 Wilson and Company failed. This "war promotion," its subsequent extravagant management and final collapse in the depression following the Great War is merely one of a considerable group of industrials promoted during the hectic prosperity of the war by banking interests which assumed that the war profits could be maintained under competitive conditions of peace. One is reminded of Milton's "Serbonian bog. . . . Where armies whole have sunk."

[m] During the first two and a half years of the European war large blocks of foreign securities were underwritten and sold in this country. The underwriting losses were in many cases very large. Practically every underwriting of Russian bonds proved a loss. At one time a New York banking house was managing a syndicate of Pennsylvania Railroad bonds, and United States Rubber Company bonds. The former proved very profitable and the latter very unprofitable to the subscribers, although the banking house assured itself of a very large, perhaps excessive, profit in both cases.

fused to make any subscriptions. The chances, therefore, that the small private investor will derive a profit from underwriting are comparatively small, and the chances that he will suffer a loss comparatively great. The dice, as it were, are loaded against him.

CHAPTER IX

MARKETING OF INVESTMENT SECURITIES[1]

The underwriting of stocks, notes, and bonds is merely an intermediate step between their issue by the corporation and their sale to the public. As already suggested, the syndicate is an instrument of the bankers for distributing the risk incident to the sale. And it is not a necessary incident, for many securities are sold which have not been underwritten. It is a means to an end, and the end is the final absorption by the investing public.

wholesalers:
retail distributing
local retail
bond houses

Types of Investment Banking Houses.—Investment securities of standing are sold through the investment banker. Speculative securities or those of little or doubtful value may be sold directly by the issuing corporation or distributed by irresponsible promoters or fiscal agents with the help of extravagant advertising matter. The discussion in this chapter is concerned only with investment securities of real value distributed by reputable investment bankers. Investment bankers are of three types: the wholesalers, the large retail distributing houses (embodying both wholesale and retail functions), and the small local retail bond houses possessing a close but narrow circle of customers.

Example:
Electric bond
and share co.

The Wholesale Investment Banker.—The wholesale banking house purchases directly entire issues of securities from corporations with which it is affiliated. Such wholesale investment bankers are represented by the large international banking houses on the one hand, and by special distributing corporations acting as the fiscal agent for a particular group of companies on the other. An illustration of the latter is the Electric Bond and

---

[1] As in the preceding chapter, the observations here apply equally, with the requisite modifications, to the marketing of securities of old-established and new companies.

Share Company, which stands in the position of a wholesaling house for the electric operating companies controlled by or allied with the General Electric Company. When one of these companies requires money for extensions, it sells its securities directly to the Electric Bond and Share Company, which then negotiates the sale to other distributing houses or small retailers.[a] The wholesaling house ordinarily deals almost exclusively with investment dealers and it is successful within limits in fixing the prices at which its securities are resold to the public.

One of the chief services of the wholesale banking house is in connection with superintending the preliminary work incidental to the issue of all securities. If the issue is part of a new promotion, the wholesaler frequently performs all the services described in Chapter III of this book in connection with the elaborate investigations and the working out of a financial plan. More often, however, the typical wholesale house buys issues of already existing companies; but in such cases all the facts reported by the corporation's attorneys and accountants must be checked and verified. Very often the wholesale banker works out the details of a new mortgage securing an issue of bonds he proposes to buy or assures himself of the conditions protecting a new issue of stock.

Besides selling blocks of securities directly to other distributing houses, these wholesale houses arrange stock and bond syndicates, and superintend the distribution of these securities by means of general advertising and co-operation among the members of the syndicate. Strictly speaking, there are not more than half a dozen regular wholesale houses in the country and the importance of their services in the general scheme of the distribution of securities may be easily exaggerated. The wholesaler pretends to do a business based on large volume and small profit, although the observation of the writer is that the profit of the wholesaling house is usually underestimated,[b] just as that of the retailer is overestimated.

---

[a] The policy of this company seems to be to contract for the sale of bonds, both those first issued and those to be issued later, with either a syndicate of distributing houses or else one large organization. To use the usual expression, "It has tied up with John Jones and Company on the bonds." With preferred stocks, the Electric Bond and Share Company has followed the practice of widely distributing or "peddling" the shares in small lots. This same policy followed in large measure by other wholesale houses together with the fact that preferred stocks give the dealer a larger profit, accounts for the predominance of preferred stocks over bonds in the lists of the small local retailing dealers.

The Large Distributing House—The Buying Department.—Typical of current financial methods and certainly the most important cog in the present machinery for the distribution of securities is the large distributing house.[2] The internal organization of these large bond houses is not always the same, but there is usually a central home office with branches in the chief cities. These branches may be separate partnerships or even separate corporations.[c] The concern has two separate and highly organized departments: that of buying securities and that of selling them. These departments are distinct.

The buying department is usually controlled by one man, or by a small group of men, who, more than any others in the organization, determine the policy of the firm. The judgment of these men in any given case is final. The buying department ordinarily keeps in close touch with conditions all over the country in the industry with which it is most familiar. Thus, if the organization specializes in public utility bonds, its buying department will probably have traveling men whose business it is to range over the country in search of suitable opportunities for the purchase of new securities. In the home office there is elaborate statistical information and possibly a trained corps of statisticians to tabulate and to digest systematically the earnings of public utility companies all over the

---

[b] Considering that these houses do nothing but turn over the securities in large blocks, their profit is altogether out of proportion to their effort. Especially is this true—and this is of great importance—when it is remembered that they assume *absolutely* no responsibility for the securities after they have left their hands.

[c] Investors have more confidence in a bond house that is not incorporated. The reason for incorporation is invariably, whether admitted or not, to avoid the financial risks and responsibilities incident to the partnership form.

---

[2] The best short account of the American bond distributing house is that of Chamberlain, L., The Work of the Bond House.

country. When a particular proposition has been brought to the banking house by promoters or wholesale bankers or has been suggested by the field men or the research department of the organization—"dug up" as the phrase is—the head of the buying department will pass a rough judgment upon it. If it is outside the scope of the organization, or unsuited to the clientele of the bond house, or if it shows some glaring defect not observed in the preliminary examination, he will probably discard the proposition without further investigation.[d] If the men in control of the buying detect no glaring defect, they will first employ engineers to report on the physical and economic value of the property[e] owned by the company. At the same time they will employ accountants to check the figures of the company's own auditors. Meanwhile they will have arranged some provisional basis on which the bonds of the company may be acquired. This may be a definite price or a provisional price subject to the auditors' report on the one hand and the changes in the condition of the money market on the other. If all these preliminary investigations and negotiations are satisfactory, the bankers will employ their

---

[d] Chamberlain gives four steps in the elimination of issues by a bond house: first, "to discard the propositions of companies that conduct a kind of business unfamiliar to the bankers"; second, "to discard loans that have not a claim on property worth, under the most unfavorable conditions, more than the amount of the obligation secured"; thirdly, "to discard those propositions which do not give reasonable assurance of earning at all times at least 50 per cent more than all fixed charges, after making extremely liberal estimates for depreciation and future increased operating expenses"; fourthly, "to decline loans to companies conducted by men or with methods that do not meet with approval."[3]

Unfortunately the lure of the "long profit," or the implied obligation to enter syndicates because of "connections," makes most bond houses far less fastidious than these sanctions would imply. As Mr. Chamberlain would probably be forced to admit, there is a conspicuous difference between what bond houses ought to do and what bond houses actually do.

[e] There is a growing reluctance on the part of the buying department of banking houses to rely on what might be called a mere engineer report covering the form, the quality, and the value of physical property. Reports which value every nut and bolt from the engineering point of view are often very deficient in a proper estimation of such property as parts of a going business equipment, and structures which may have cost a hundred thousand dollars may be worth a great deal more for the purpose of the business or a great deal less.

---

[3] Chamberlain, L., The Work of the Bond House, 16

lawyers to examine the old agreements, franchises, and the like, and to prepare the legal papers covering the entire transaction. These lawyers will probably draw up the mortgage under which the bonds are issued and insert a number of special restrictions and conditions, the purpose of which is specifically to fortify the position of the bondholders more than any mortgage drawn up by the company's attorneys would be likely to do.

The Selling Department.—When all the details of a purchase of bonds or stock are arranged, the buying department passes the entire matter over to the selling department. This is the larger department of the business and the one with which the public comes most in contact. The entire selling organization is under immediate charge of a general sales manager who controls the selling organization as well as all the branch offices. While the sales manager may now and then conduct a general newspaper advertising campaign, his chief reliance is upon the representatives of the house who personally visit the investors. The retail selling of securities rests more on the personal solicitation of salesmen than does the retail distribution of any other form of property. A retail banking house is an organization of men. In addition to the home office salesmen who travel over the territory immediately adjacent, representatives of the bond house range over all the important bond-buying districts. These men have their headquarters, consisting possibly of a little office or a hotel room, in the largest city of the district which they cover. They are given exclusive privileges in their localities and any inquiries made at the home office are referred to the representatives.

In the larger bond houses there is a regular system used in procuring, training, and paying the representatives. As the customers are probably men of considerable education, great care must be taken in the selection of the salesman-apprentices. They are usually young college graduates,[f] chosen more often because of the social position and standing of their families than because of any other reason, but to succeed they must possess an attractive personality, great patience, cheerfulness, and a natural willingness to take trouble for other people. They must be true salesmen in the best sense of the word. Yet they need know nothing about the business, and can make a modicum of success without ever learning much about finance, or even appreciating the science of investment. The author has in mind one stock salesman who has succeeded solely because of his wonderful good nature, his natural kindliness, his abounding good health, and a clean, handsome face.

---

[f] The higher grade bond houses will employ mostly college graduates. This is particularly true of those soliciting the custom of New England

---

investors. Chamberlain remarks "The road men (salesmen of the bond house) themselves—a large number, perhaps most, will be college men for several reasons. The calling will bring them into contact with the very best classes of people, men in positions of trust, and men and women who have sufficient talent to accumulate funds or who have had the benefits of inherited means. College men as a class are more acceptable and congenial to such people than relatively inexperienced men who are not college bred. College men have one distinct disadvantage. Education induces reflection, and reflection often saps the dynamic spontaneity that is a salesman's best asset." Chamberlain, L., The Work of a Bond House. As one who has taught college men for the last twenty years, the present writer is somewhat doubtful that the "reflection" induced in the average college man saps any "dynamic spontaneity" or anything else.

The following observation was made regarding college-bred salesmen by the partner of a distributing house, himself a college graduate, who had passed up through all the stages of the business.

"Personally am strongly inclined to believe college men do not make the best salesmen. At least thirty men, would-be bond salesmen, passed through the office of .... The men who fell by the wayside were almost always college men. The men who sold the largest amount of securities year in, year out, were *not* college men. The reason for their success was hard work and not brains, nor social acquaintances. The average college man found in a bond house is there because he considers the hours of work are short, and the work itself is "genteel." He is apt to be lazy and disinclined to take "cold turn-downs" as part of the day's work. He is also overcritical, and prone to form opinions of his own concerning securities. The non-college man is more inclined to look with awe upon his "boss" and to take as gospel truth everything told him by his house and to enthuse accordingly. It is enthusiasm and hard work that sells bonds or anything else more than brains and acquaintances, i. e., considering results year in, year out."

Chamberlain, in his analysis, neglects one important aspect of the question—the relatives and friends of the young man. These are of more concern to the bond house than his "dynamic spontaneity." Any young man, well known in college fraternities or athletics, coming from a family of wealth, will be given a position in one of the prominent eastern bond houses. He will be "carried" until he has sold his relatives and friends a full complement of the securities of the bond house and as much longer as their business is worth while.

He is always welcome; people are glad of his mere presence. Consequently he sells securities, although he knows nothing about them. He smiles, and lets the customer do the talking.

During the first year of their apprenticeship they are paid a small amount, perhaps $3 a week, or even nothing at all. The bond business is highly respectable, affords opportunities to meet "nice" people, and removes the stigma of the jobless. These apprentices are at constant attendance at the home office "learning the business." Books are prescribed for them to read, lectures are given them, and they are even shown over the properties in which the bond house is interested. They attend all the meetings of the salesmen at which the various bond issues are described by the sales manager or members of the buying department. But practically no work is expected of them, except that they may be sent on errands. At the end of their apprenticeship these men are given an opportunity of meeting a few customers. Usually they are asked to call on their friends and relatives first. If the bond house has itself a high reputation, the bonds are sold on this reputation or "halo." Subsequently they will be tried out among strangers. If they show an aptitude they will be advanced to regular positions in the home office or else given territory of their own as district representatives of the house. Later if they exhibit marked success, they may be given small participating partnerships in the bond house.[g] This has proved a strong inducement to hold the loyalty of especially able salesmen, at lower salaries than they could rightly anticipate from competing bond houses.

Each investment house keeps an exhaustive list of possible customers. It has been said that "Every eastern bond house has, or ought to have, a list of at least 70 per cent of all the bond buyers of consequence in every city or town in New England." This list of possible investors is carried on cards on which also are noted the peculiarities of the investor, his investment prejudices, and—if possible—a list of his investment holdings. These cards are kept constantly up to date, through the information obtained during the personal calls of the various representatives. The names on this general list are obtained in the first instance from outside sources, although the effort is made to establish a personal connection with the possible customer through a call from a representative of the bond house as soon as the name is entered. Probably the primary means of obtaining the names of possible investors is the answers to advertisements. Supplemental to this direct source are the various channels accessible to every bond house and therefore less valuable because more the common property of the trade. In any town it is presumed that the bank directors, savings bank trustees, successful and middle-aged physicians and dentists, architects, and perhaps lawyers are bond-buyers. The names of such are taken from local sources and visited by the representative.[h] Again the sales manager can buy lists of stockholders of well-known corporations, the presumption being that a stockholder is a possible investor.[i] Again, too, the settlement of estates, bequests, sales of property, are watched with the purpose of securing the reinvestment of the funds.

---

[g] Even during their experience as salesmen, it is customary to give the men a share in the profits. Sometimes these profit-sharing schemes are very complex, so that the salesman receives a percentage on each individual sale made and another percentage on the total gross sales or gross profit of the entire business of the organization. More frequently, however, he receives merely a certain sum on each sale, as $1 a bond, or else a certain percentage of the gross profit on the bonds sold by him. Of course he receives a regular salary, which may or may not be deducted from his total commissions according to the individual practice of the bond house.

---

[h] One successful salesman told the writer that when he went to a town for the first time he found out from the hotelkeeper who it was that knew "all about the folks in the town." Sometimes it was the hotelkeeper, sometimes an old woman. He made the acquaintance of this person which, after a few days of careful cultivating, developed into an intimate acquaintance. From him or her he gradually evolved the past history, financial retrospect and prospect, the weaknesses, scandals, feuds, and the like of some score or more of the town's leading citizens. He catalogued all this information on cards. On his first visit to a prospective customer, he merely talked on subjects he was interested in—or rather allowed the "prospect" to talk. He did not try to sell securities until his second or third visit.

[i] There are men who travel about gathering stockholders' lists. A man, by having one share of a corporation transferred to his name, may gain access to the list of stockholders of practically every corporation. These names are tabulated and sold to bankers, usually at a charge of $1 per hundred. The lists are chiefly used for circularizing a special security, particularly a preferred stock. A banker, wishing to sell the preferred stock of a new public utility holding company, would procure the lists of the preferred shareholders of the Standard Gas and Electric Company of

The Small Dealer.—It was stated earlier that there are three groups of distributing houses, the large wholesaler, the general bond house—the structure of which has just been described—and finally the local retail merchant in securities. The office of this latter is a miniature of the selling department of the large distributing organization, having fewer salesmen and more direct personal supervision by the owner or partners of the business. Its clientele is restricted to a relatively small locality. Often the local dealer is his own sales manager, office manager, and buyer; his customers are drawn largely from among his friends and acquaintances, and those with whom his salesmen come into direct personal contact.

The greatest difficulty and handicap of the small dealer is in the purchase of good securities. As he has probably learned what he knows of the business in the selling department of a larger organization, he knows little of the purchase of securities from experience. He has neither the time nor the requisite ability to pass judgment personally on the property behind the various securities he offers. He must purchase these from the wholesalers or else from the large distributing bond houses that maintain a wholesale department. Too frequently he is governed in his selection of securities more by the profit obtainable than by the fundamental security. This is particularly true if the dealer handles preferred stocks where the risks are almost invariably greater than in the case of first mortgage and underlying bonds.

In actual experience the small local dealer can do best, quality of stock or bond and liberality of profit both considered, by

---

Delaware, or the American Gas and Electric Company, or the Cities Service Company. These lists would indicate persons who have in the past purchased securities resembling those he is about to offer and the presumption naturally exists that they might be induced to purchase similar securities of another similar enterprise.

purchasing his securities from a wholesaler who maintains no retail department but depends for its avenues of distribution on a widely scattered group of dealers like himself. The Electric Bond and Share Company, for illustration, has adopted the policy of "cultivating" the small dealer, supplying him with good securities, to be sold on a very liberal margin of profit. A large bond distributing house, organized chiefly as a retail distributing agency, has little use for the small local dealer. The profit allowed him on good bonds will therefore be inconsiderable, or else the poorer and less salable securities will be forced upon him.

The Procedure of Selling.—As stated earlier, all investment dealers, whether the large bond house or the local dealer, rely primarily on personal solicitation to sell both bonds and stocks. To supply the salesmen with the proper information, meetings are always held at regular intervals at which a member of the buying department or the sales manager, or in the case of the small local dealer, the proprietor himself, explains in great detail the new issue of bonds or stocks that the salesmen will be asked to work upon. In this talk the "selling points" of the issue will be brought into bold relief. If it is a public utility issue the salesmen will be told all about the locality, its geography, industries, and potential economic possibilities. In the case of large new issues with which the organization proposes to become permanently identified the entire selling force may be taken over to inspect the property. In addition to all the "selling points," a good sales manager will probably take up in detail all the possible objections and reasons for declining to buy with which the salesmen will be confronted. Most of all, the sales manager will seek to instil in the men a real enthusiasm for the issue. If he understands his work he will succeed in making each man feel that the issue is a remarkable investment opportunity, one which it is a real privilege to buy. If the manager succeeds in creating this enthusiasm the issue will be sold, otherwise it will not. No amount of statistical information will serve as a substitute for enthusiasm.

As a help for the salesmen and as a written memorandum, the bond house will supply its men with the bond circular. This is the only advertising matter used. And so hidebound and sensitive is investment opinion that the bond circular must conform exactly to established practice or else it prejudices the possible investor against the issue. Its tone must be direct, formal, critical, and it must be absolutely devoid of demonstratives and superlatives.

As Hugh R. Conyngton wisely remarked, "Just how far verbal gilding may be carried in promotion without overstepping the bounds between legitimate statement and false representation, is sometimes a question. There is, however, no question but that an enterprise to be financed may be made or marred by the manner and method of its presentation." [4] The bond circular should merely state facts; adjectives, enthusiasm, and "punch" are to be supplied by the bond salesman himself. In form the typical bond or high-grade investment preferred stock circular consists of a four-page leaflet, printed on a good quality of laid paper. The first page consists of a brief summary of the issue, with the investment dealer's name at the bottom. The second, third and, if need be, the fourth page of the circular is occupied with the "President's letter." This is a comprehensive account of the securities offered, the nature of the enterprise itself, its capitalization and earnings. These letters are seldom if ever written by the president of the company; he merely signs them in his official capacity. The real author is some man in the bond house whose especial business it is to prepare them as a part of the general machinery of selling. In the case of the large selling syndicates the form circular is prepared by the syndicate manager and a certain number of copies are struck off with the imprint of each of the syndicate's members on the first page. In this way one circular answers for all the bankers, brokers, and small dealers who propose to offer the bonds or stocks for sale.[j]

---

[4] Conyngton, Hugh R., Financing an Enterprise, 10 (1921).

---

[j] As an illustration a very good brief circular of the Fort Worth Power and Light Company preferred stock is appended. The promotion of this company was described in some detail earlier (page 343) and this circular, issued after the enterprise had been well established, should be compared with the statements given out at the time of promotion.

75

Fort Worth Power & Light Company

Fort Worth, Texas

7% Cumulative Preferred Stock

Preferred as to Assets

Redeemable at the option of the Company at 115 per cent of par
Dividends payable quarterly, February, May, August, and November 1
The Guaranty Trust Company of New York, Transfer Agent

Columbia-Knickerbocker Trust Company, New York, Registrar

The Fort Worth Power & Light Company does the entire commercial electric light and power business of Fort Worth, Texas, having been incorporated July 14, 1911, under the laws of the State of Texas and having acquired all the electric light and power properties and rights of the companies that formerly served the city.

CAPITALIZATION

	Authorized	Outstanding
Preferred Stock, 7% Cumulative, redeemable at 115 per cent of par....	$ 800,000	$ 800,000
Common Stock....................	2,760,000	2,760,000
Bonds, First Mortgage 5%..........	10,000,000	1,601,000

For further information regarding the preferred stock, attention is called to the accompanying letter from the president of the Company, a brief summary of the principal points presented being:

Entire control of the business field.
Satisfactory franchise situation.
Important contracts with the city for the supplying of power for pumping the city's water and for lighting the streets.
Earnings for last twelve months equal to over three and three-quarters times the dividend requirements.
Increase in gross and net earnings expected through natural growth and through economies in operation of new plant recently completed.
Population now served approximately 85,000 and rapidly increasing, the growth of Fort Worth in the ten years ended 1910 being equal to 174 per cent.
Fort Worth is one of the most prosperous cities of the Southwest and has more railway outlets than any other city south of St. Louis, Mo.

Services Rendered by the Bond House.—Turning now from the somewhat complicated machinery for the distribution

---

Price on Application
May, 1913 John Jones and Company
28 La Salle St., Chicago

FORT WORTH POWER & LIGHT COMPANY
Fort Worth, Texas

May 10, 1913.

ELECTRIC BOND AND SHARE COMPANY,
71 Broadway, New York.

Dear Sirs:

I submit the following particulars regarding the Fort Worth Power & Light Company:

The Fort Worth Power & Light Company was incorporated July 14, 1911, under the laws of the State of Texas, and acquired all the electric light and power properties and rights of the companies that previously operated in Fort Worth. It now does the entire commercial electric light and power business of the City of Fort Worth, Texas, and under contracts with the city, furnishes electrical power for pumping the city's water and lighting the streets. The population served is approximately 85,000.

CAPITALIZATION

	Authorized	Outstanding
Preferred Stock, 7% Cumulative, redeemable at 115 per cent of par....	$ 800,000	$ 800,000
Common Stock....................	2,760,000	2,760,000
Bonds, First Mortgage 5%..........	10,000,000	1,601,000

Additional bonds can be issued only under conservative restrictions.

The preferred stock is entitled, in preference to the common stock, to cumulative dividends at the rate of 7 per cent per annum, and in any distribution of assets to the payment of the full par value, plus accrued dividends. It is subject to redemption upon any dividend date at 115 per cent of par, plus accrued dividends, at the option of the Company upon sixty days' notice. Dividends on the preferred stock are payable quarterly, February, May, August, and November 1.

EARNINGS

The earnings of the Company for the twelve months ended March 31, 1913, were:

Gross Earnings....................................	$541,230
Operating Expenses and Taxes........................	263,249
Net Earnings....................................	$277,981
Interest Charges....................................	65,976
Balance....................................	$212,005
Annual Dividend on $800,000 Preferred Stock..........	56,000
Balance....................................	$156,005

These figures show earnings for the preferred stock equal to over three and three-quarters times the dividend requirements.

of securities by investment bankers, large and small, we naturally inquire whether or not it all has any social or eco-

---

CONTRACTS

The Company has a five-year contract with the City of Fort Worth for the furnishing of electrical power for the city's new water pumping plant and for all other pumping stations. Under this contract it is furnishing to the city 500 H. P. of motors.

The Company also has contracts with the city for supplying the power for lighting the streets. The contract for supplying the power for lighting the streets in the business section runs for fourteen years and the contract for supplying the power for lighting the other streets of the city runs for nine years.

The Company now supplies, under contract, the Texas Power & Light Company with a part of its power requirements, the power being delivered over the Texas Power & Light Company's high-tension transmission lines running between Waco and the city limits of Fort Worth. The interchange of power made possible by the connection of the stations of the two companies is of advantage to both companies and the communities they serve, as it insures continuity of service.

FRANCHISES

The franchises of the Company are free from burdensome restrictions. One expires in 1935 and one is unlimited in time.

PLANT AND EQUIPMENT

The Company's distributing and transmission system of approximately 121 miles completely covers the city and outlying districts. In the fire district of the city the Company has 17 miles of underground conduit system in operation. It also has in operation 4 miles of high-tension transmission lines.

The Company has recently completed and placed in operation one of the largest, most modern and best equipped steam generating plants in the Southwest. The plant is located on the banks of the Trinity River, from which ample water for condensing purposes is obtainable from a very effective pondage dam built for the purpose. The present normal full-load capacity of the plant is 8,000 kilowatts, but this capacity will be increased by 5,000 kilowatts as soon as additional equipment now on the ground is installed. The building of the plant has just displaced the old plants of obsolete type, and material economies in the company's operations are consequently expected.

TERRITORY SERVED

Fort Worth, the county seat of Tarrant County, is one of the most prosperous, substantial and rapidly growing cities of the Southwest. In 1900 its population was 26,688; in 1910 it was 73,312, a growth equal to 174 per cent. In 1900 the assessed valuation of the real estate of the city was $21,306,785; in 1910 it was $55,425,120, an increase equal to 160 per cent.

Fort Worth is one of the most important railway centers in the country. It has 12 trunk lines and 17 railway outlets—more than any other city south of St. Louis, Mo. In the last five years $2,500,000 has been spent in improving the terminal facilities.

The city is the packing center of the Southwest, having two plants doing an annual business of $75,000,000 and employing 5,000 people. The city has 16 grain elevators, with a capacity of 2,155,000 bushels daily, 95 nomic usefulness. Why cannot the ultimate investor acquire his securities directly from the company, rather than through the ordinary channels of the investment banking house? The answer is simple. The bond house contributes something the investor cannot obtain elsewhere—responsibility. This shows itself in three principal ways: investigation into the securities offered, sound and individual advice to the customer, and reasonable protection to the market of the security offered.

Reference has been made already to the care exercised by the reputable investment house in the purchase of securities. This is of great service to the investor and the community. The established banking house ranges itself always on the side of established business enterprise, tried business judgment, and the conservation of resources; it is opposed to speculation and irresponsible management of property. Its investigations are—or ought to be—as rigid as the available knowledge permits.

Investigation and Advice.—In addition to its own research work the modern bond house stands ready, in spirit at least, to distribute sound financial advice. In this its usefulness is not restricted to the investigation of its own issues, for its selling organization stands ready to give intelligent advice concerning all investment matters. The widow comes to the bond house to ascertain the standing of a variety of securities left

---

miles of street railway, and 16 national banks and trust companies with aggregate resources of over $26,000,000.

Very truly yours,
A. J. Duncan,
President.

All legal matters incident to the organization of the Fort Worth Power & Light Company have been examined by Messrs. Simpson, Thacher & Bartlett, New York.

An audit of the accounts has recently been made by Niles & Niles, Certified Public Accountants, New York.

The statements contained in this circular have been obtained from sources we regard as reliable, and while we do not warrant their accuracy, we believe them to be correct.

Other bond and investment stock circulars may be easily obtained from reputable bankers. As a general rule the higher the investment grade of the issue the more colorless and unenthusiastic will the circular appear.

her by her husband; the teacher, physician, minister, or architect comes to the bond house for information concerning the earnings of the companies he is interested in, the standing of their securities, and the wisdom of selling them when the market price registers a rapid rise or equally rapid decline. A railroad is to be reorganized. Some member of the organization makes a careful study of the situation and stands ready to advise any of the customers of the bond house, or anyone else that seeks its advice, concerning the fairness and feasibility of the plan of reorganization, and the probable standing of the new company.

All this highly specialized service is given free to whosoever comes, but it is the most valuable advertising a bond house can do. And, although its advice concerning the purchase of securities is invariably biased by the goods on its own shelves, and too frequently by the length of the profit, it is probable that the investment advice freely given by the well-established bond houses is thoroughly sound.[k] It is almost invariably sounder than the untutored and casual judgment of the customer himself or the haphazard opinions he may glean from his friends and acquaintances. The bond house has its reputation at stake, and it knows that an untarnished reputation is the most valuable asset it may acquire. An unreflective or a selfishly narrow opinion on any security will remain lasting evidence of either faulty judgment or downright misrepresentation.

The fairness of attitude toward competitors shown by the high-grade investment houses is not attained in any other business. An employee of a reputable organization will not

---

[k] On this point Chamberlain wisely comments, "Ethically, the advice of the bond house is excellent, whether coming directly through the office or through salesmen. Technically, its value is highly variable in this country, due to the fact that our financial houses are still, primarily, merchants of securities rather than counselors. It is hard to be fair as between two securities carrying very unequal profits. That is one reason why, in the previous chapter, I intimated that the merging of banking and operating functions in a bond house has its drawbacks. It impairs the value of the advisory function." This latter point is of much greater importance than the ordinary investor recognizes.

Point

"knock" the securities offered by other houses, much less misrepresent them, provided they are inherently good. Like all salesmen, he may declare that his own wares are the best, but such pride will not be carried to the degree of disparaging his competitor's goods unless they are undisputably bad. In such cases he will be content to point out their weaknesses in general terms.

The low-grade bankers, brokers, and scalpers are actuated by no such ideal. They will disparage all goods except their own, seeking to induce the victim to "trade out" some thoroughly good bond for a local preferred stock or some other security showing the dealer a long profit, but itself unmarketable and of doubtful value. The scalper knows that he can sell the good bond to the house that brought it out at a slight concession in price, possibly two or three points, whereas his profit on the unmarketable stock is ten points or more. This trading by the "pikers" is a serious and unfortunate handicap to the reliable house that honestly seeks to maintain the market on its securities.

Maintenance of the Market.—The other important function supplied by the bond house is the maintenance of the market on its own securities. When a man purchases bonds and stocks on the open market through the ordinary brokerage channels, his securities may advance or decline, but the responsibility is his alone. It is presumed that he investigates his securities before purchasing them, although the presumption is usually contrary to fact. If they decline in value, the broker will no more meet the deficit than he would claim the increase if they had advanced. This is true even though the broker in his "market letter" had advised and besought his customers to buy the security.[1] The responsibility of the selection and of the consequences remain with the purchaser, a rigorous application look out fo

---

[1] These "market letters" are distributed free by stock-brokers as a means of drumming up trade. The advice they contain is probably worth what it costs.

of the principle of *caveat emptor.* But a reputable bond house will follow just the opposite policy. If the customer needs money at any time—except in a time of panic—or for any other reason wishes to sell his bonds, the house from which he purchased them will stand ready to buy them back at a small concession, usually not more than three to five points below the current asking price. Very seldom would a high-grade bond house refuse to support the market on its own "specialties," although a disaster to the company or other mishap might render further support impossible. No bond house has capital enough to assume a mass of unmarketable securities of an enterprise that has turned out ill. But unless the company has met with some calamity threatening its integrity, the investor will find the banker ready to make a market for them at any time.

This support of a security extends to the period of failure and reorganization. No matter how careful an investment house may be it meets with a failure sooner or later—the longer it has been in business the greater the number of its mistakes. But the firm will do all in its power to protect its customers. When the failure of a company in which it is interested becomes imminent and during the succeeding period of reorganization, the investment house will give unreservedly of its time and resources to help the unfortunate company. It will bring to the task of reorganization a fund of business experience and sound judgment; it will organize syndicates to supply new money, and it will give the reorganized company the necessary moral and financial support. There is no obligation upon the investment house to furnish these services, but they are undertaken cheerfully as the obligations implied by its stewardship and trusteeship.

can not be both

Distribution, not Ownership.—Because of the divergence in interest between the operating head of a corporation and the distributer of securities, it is unfortunate that a bond house should own and operate any properties of its own. It cannot be trustee for its own interests and those of its customers, when a concern which it controls is debtor and its customers are creditors. A man cannot serve two masters. The merchant of securities cannot recommend the stocks and bonds of its own companies in an entirely unbiased frame of mind; he must protect "his own companies." This is radically wrong. The merchant in securities of an income-producing property occupies a diametrically opposite position to that of the owner or operator of the property. It is to the interest of the owner to borrow as much money as possible, at money rates as low as possible and with as few restrictions as possible. It is to the interest of the investment dealer to reduce the borrowings to the lowest compass, to insist on the maintenance of a large stockholders' equity, and to protect the bond issue by as many restrictions as possible. However careful, the operator cannot deal with himself as banker without jeopardizing the interests of the investor, just because he meets with no objective check or sanction. It is just the competition of bankers among themselves to buy good securities that makes it possible for the operators to realize the most they can for bonds, and it is the competition of operators among themselves to sell their bonds that enables the investor to feel that his banker has exercised an unbiased discrimination in the securities he offers. This is an excellent reason why the most influential investment houses do not attempt to operate companies of their own, but remain merely merchants in capital. Their sense of responsibility is not deadened by the lure of the speculative profit in the equity.

The Fallacy of Direct Selling.—The question of direct selling frequently presents itself to a corporation. In this respect there is a very strong prejudice to deter a corporation engaged in the railroad, lighting, or manufacturing business from trying to sell its own securities. So strong is this feeling, that investors assume that the corporation cannot find a reputable banker to offer its securities, if it resorts to offering them itself. This reason alone is sufficient to deter most corporations from attempting to advertise and sell their own stocks and bonds, but there are other reasons based on economy and expediency.

The first is that of cheapness. It would cost the corporation a great deal to sell its stocks or bonds to the public directly through a campaign of advertising. It is unprepared for the work. It has no selling organization, no facilities for protecting the investor, no trained men of expert knowledge to investigate investment conditions. To attempt to supply all these needs and facilities in even a small degree, would require an expenditure so much greater than that entailed by the banker already possessing a selling organization, that the policy of direct selling could not be considered for a moment.[m]

(1) Cheap

The future support of the banker is, in addition to economy, the weightiest reason that should lead a new corporation to seek to market its securities through a respectable banking house. This support lies along two different but allied channels. A The first is the implied willingness on the part of the investment banker to provide new capital for the expansion of the business, or to tide it over in case of a sudden emergency. B The second is a willingness on the part of the banker to maintain a reasonable market for the company's securities. Then,

Bank
futur
A - Exp
B -

---

[m] Some municipalities have tried to sell their bonds directly to the investor. They are in a much better position than the corporation to undertake the work, because municipal bond issues need no recommendation by bankers. Furthermore, as bankers do not, ordinarily, protect the market on the municipal bonds they sell, the city offers no worse service than the banker. Yet in spite of these considerations, it is, in the opinion of the present writer, bad business policy for the municipality. Undoubtedly, in an active, buoyant bond market the city can sell its bonds; but it fails when conditions are not right, and no banking house will buy bonds already offered by the city, except at a marked concession. It has been done many times. In the spring of 1913, Philadelphia offered $7,000,000, 4 per cent bonds, "over the counter." The experiment was widely advertised as a success. But it was not. Only $1,910,000 were actually taken by the public. The Commissioners of the Sinking Fund of Philadelphia took $1,225,000, and some twenty-five banks and trust companies subscribed large amounts. In cases where the municipality has made a conspicuous success of an "over the counter" sale the local banks and large investors have usually stood in the background as a kind of quasi-underwriting syndicate, as did the late James J. Hill for certain sales of St. Paul bonds.

hen co. sell o securities
on stockholders
result,
and
n stockholders
ill not
operate in
of stress

too, the investment banker distributes his securities to a better group of persons than could be reached from the promiscuous advertising of the company itself. If the company advertises and sells its own securities, the chances are they will fall into the hands of a class of men and women who purchase them because of their speculative possibilities. Such a class of people will become angry with the company if these speculative possibilities are not realized and will sell their bonds or stock and create a large floating supply. This tends to impair the company's ~~general credit,~~ and there will be little or no co-operation between stockholders and directors. If, on the other hand, reputable investment bankers distribute the securities, they will be sold among the banker's own clients, who acquire them for investment and not speculation. Such a group of stockholders would be loyal to the company and would co-operate with the management through the investment banker. They would be more likely to weigh carefully the advice of the banker before throwing their securities on the market at a loss, and thus impairing the company's credit. ¶

It is true that in spite of all the reasons why corporations should not try to market their own securities, there are many instances in which they have tried to do it. If the corporation enjoys strong credit, if the securities are conspicuously attractive, and if the general investment conditions are very favorable the sale will succeed. This does not prove, however, that such a policy is wise.[n]

---

[n] Two examples suffice. In the early part of 1914, when general investment conditions were perhaps the best during the last ten years, the Third Avenue Railway offered $4,000,000 of bonds for public subscription on a 4¾ per cent basis. The issue was subscribed about four and a half times over. This success caused a good deal of comment, and had it not been for the European War the example would probably have been followed by other corporations later in the year.

In 1917, a large local rubber manufacturing company became embarrassed by too much business. As a result it had too little working capital and too many salesmen. The bankers demanded that the company reduce its bank loans by the sales of stocks. Accordingly, the company's rubber salesmen were turned temporarily into stock salesmen who sold large amounts of the company's 7 per cent preferred stock among its rubber customers.

The Profits of Security Selling.—The profits obtained by the investment banker are sometimes very much exaggerated and sometimes very much understated. It all depends on the kind of security dealt in, the ease of sale, and—unfortunately—the grip the banker has on the corporation. The gross profit is smallest on the non-taxable bonds of Massachusetts cities and towns. It is largest on the preferred stocks of small, local manufacturing enterprises. The difference in gross profit is extreme. Very frequently the gross profit on a Massachusetts short serial bond is as low as a half of 1 per cent, $5 on each thousand-dollar bond; very frequently the gross profit on the preferred stock of the small industrial is as high as 20 per cent, or $200 for each thousand dollars of par value.[o] Between these extremes lies most of the investment business. Seldom, except for advertisement, will a bond house expect to obtain as low as half a point profit, and few reputable investment houses care to associate their names with an enterprise so needful of capital that it must pay twenty points for selling its securities.

Leaving out the various syndicate and selling commissions, and restricting our judgment to the total gross profit—that is, the difference between the price received by the company and that paid by the public investor—it is possible to reach certain general averages that are approximately true under normal conditions.[p] In order to refer to the matter in more than mere guesses the writer has gathered accurate information covering the gross profit for various classes of securities using the offerings of a number of investment bankers. For a given grade of security the gross profit is remarkably uniform for the different dealers. The figures are drawn from offerings during the three years preceding the European War and some from offerings made during 1915.[q] For obvious reasons further details cannot be given although great care has been exercised in using cases which are fairly representative of their classes.

---

[o] This does not include the sale of the stocks of highly speculative enterprises; the marketing of these securities is discussed in the next chapter.

[p] The problem is sometimes complicated by the gift of stock bonuses to the bankers as part commission. In computing the averages given in the following table the writer has omitted all such cases. So that the averages represent actual gross selling profits in money.

	Number of Cases	Gross Profit in Dollars per $1,000 Bond or Par Value of Stock
Massachusetts serial municipals	12	$ 8.60
Middle western county and municipals	30	28.53
Western and southern county, school district, town and city bonds	23	42.78
Underlying reissues of standard railroads	7	32.34
New railroad issues	13	46.70
New closed or very carefully restricted gas and electric light operating company bonds (distinctly the best of their class)	16	53.65
Refunding and new large open-end issues of public utility holding companies (medium and low-grade public utility bonds)	12	67.80
Preferred stocks of gas and electric light operating companies	16	76.35
Preferred stocks of public utility holding companies (initial issues when it is possible to either eliminate or evaluate the common stock bonus)	9	93.50
Local industrial preferred stocks (initial issues when it is possible to either eliminate or evaluate the common stock bonus)	15	142.50

In terms of averages, we may say that the bond house carrying a variety of securities all the way from non-taxable municipal bonds of such eastern states as Massachusetts to the large open-end issues of public utility holding companies, can expect an average gross profit, according to these figures, of about $40 a bond, or "four points," in the vocabulary of the vernacular. As the bond house will aim to sell a larger proportion of the more profitable issues, we may conclude that its gross profit on its entire volume of sales will be about 5 per cent.[r] Similarly the house which specializes in preferred stocks may expect a gross profit of over twice as much. This explains perhaps more than anything else the preferred stock salesman's interest in the investor's rising cost of living and his exasperating persistence.

---

[q] Conditions during 1916, 1917, 1918 were so irregular that no data were included. During this period, especially in 1918, the gross profits were much greater than these statistics indicate.

[r] In this connection, however, it should be noted that there is frequently demanded by the bond house a special commission for negotiating the sale of the issue. This does not appear on the face of the contract; it varies from ½ per cent to 3 per cent for investment issues of responsible com-

Taking this gross profit of 5 per cent on the entire sales, or $50 a bond, as the average for a high-grade bond house, it is interesting to note the distribution of the expenses. If conducted with care and if the costs of investigating unproductive enterprises be included, the net expenses of buying will be at least 1 per cent, or $10 a bond. On big refunding issues and municipal issues it will be less, whereas on smaller underlying issues it will be greater; but this estimate is probably a fair average. Including all the advertising, commissions, personal solicitation, and free service expenses it would cost the bond house an average of about 2 per cent, or $20 a bond, for selling expenses.[s] General and overhead expenses, clerk hire, telephones, and the like absorb at least 1 per cent. Furthermore, perhaps an average of ¼ per cent must be set aside as a reserve to maintain an artificial market, that is, to buy back from customers the various bonds previously sold. This leaves a net profit of the bond house of approximately three-quarters of 1 per cent or $7.50 on a thousand-dollar bond. Considering the risk, the responsibility, the capital required, and the intelligence, no business is conducted on so small a margin of net profit.

---

panies. During the Great War, especially in 1917 and 1918, when new capital was obtained with great difficulty, these secret "commissions" were quite customary. They have the advantage, to the bond house, of an extra profit of which its own salesmen or its associates need know nothing. To the corporation they have the advantage of a "capital expense" which may be charged to capital and therefore not amortized, and moreover, a capital expense which can be entered under various names other than "bond discount." "Legal expenses" is a ruse often used.

[s] The indirect selling expenses of the bond business are enormous. Not only must the "organization" be maintained in dull seasons as well as active times, but the business requires inordinate expenses for the mere effect. Large and richly furnished offices must be maintained, expensive stationery and the smaller, more delicate signs of an ostentatious prosperity.

CHAPTER X

THE MARKETING OF LOW-GRADE SECURITIES

Risk Incident to All Promotion.—All enterprises, even all industries, are, at their inception, highly speculative. The essential difference between an established enterprise and a promotion, from the investor's standpoint, is that in the former case there is a body of working evidence for predicting the future, whereas in the case of the promotion project this body of evidence is absent. A substitute may be offered the investor in the shape of a report of the earnings of similar enterprises, or in the shape of predictions of earnings authorized by men of known standing. At best, however, the future of all business enterprises is uncertain; what is sound and successful today becomes unsound and weak tomorrow, and what is speculative for one generation becomes the conservative "widows and orphans" investment the next. The old order changeth and values become matters of degree.

So it is with the relative uncertainty of new enterprises. The earnings of a combination of established electric light or water plants can be predicted more accurately than those of any other promotion project; on the other hand, the earnings from a patent to manufacture a new kind of breakfast food do not come even within the range of prediction. So that when one refers to speculative or low-grade securities, one usually means the securities of companies the earnings of which, for one reason or another, are conspicuously uncertain. It is only a matter of degree. Money can be lost through the purchase of municipal bonds; money can be made even through the purchase of stocks of unproductive gold mines. To speak of the one as the ultra-conservative investment and the other as arrant speculation, means merely that the degree of certainty with which future payment of interest on municipal bonds can be predicted far and away exceeds the degree of certainty with which dividends of mining shares can be foreshadowed.

In the discussion of the work of the investment banker in a previous chapter, much emphasis was laid upon the fact that the banker had an established business in which his good-will consisted of a clientele of satisfied customers. He could destroy this good-will if he repeatedly sold the securities of companies which turned out ill. He knows this. He is as particular of his good name as a woman. He must therefore restrict his promotions to those companies where the earnings, and therefore the stability, can be predicted with a reasonable degree of accuracy. He will lend his credit to a new electric light company or even a new steel mill, because he feels that his predictions will be sufficiently near the truth to protect his customers. He will not lend his credit to a new gold mine, skunk farm, or moving picture promotion because he can get no grounds upon which even to guess approximately whether or not his customer's money is secure.

Nevertheless, most industries began under conditions of uncertainty so grave that no banker at the time would have cared to underwrite the initial issues of stocks. Many industries, such as mining and oil drilling, are by their very nature so uncertain that the ordinary canons of conservative promotion cannot be applied to them.

It is probably no exaggeration to say that all industries at their very beginning, and many industries under all circumstances, are unable to obtain capital through the ordinary channels of the investment banker heretofore described. Consequently the corporations engaged in highly speculative businesses, the great number of corporations backed by inventors of "one idea," and by men of honest interests but poor judgment, and finally the still greater number of fraudulent corporations promoted by reckless swindlers, must secure their capital directly from the investing public. All promoters want to shift the risks of the business to the shoulders of the public. Ordinarily the shrewd business judgment of the experienced investing public can weigh the chances of success or failure; but in fraudulent promotions the appeal is made to the small investor who is not accustomed to weigh chances, and who, even were he able to weigh them from the data supplied by the promoter, would have the dice loaded against him.

Four Methods Used to Sell Low-Grade Securities.—The methods, devices, and deceits—even misrepresentations—resorted to in the marketing of highly speculative and downright fraudulent securities are much the same. In either case the stocks are offered directly to the possible investor without the real indorsement of a banker. This direct appeal is accomplished by the use of one of four different devices. (1) The highly speculative or fraudulent promotion may offer its own stock without intent to obscure this fact. (2) It may sell the stocks through some officer or otherwise interested party. This accomplice will pose as the company's "fiscal agent," or even as an independent banker. (3) Again, the promoters may organize a subsidiary corporation, the sole purpose of which is to ~~market the stock of the main promotion.~~ (4) Again, the promoters may contract for the sale of the new stock with some despicable concern whose business it is to sell worthless securities at an inordinate commission.

our Methods

The first of these methods mentioned, in which the corporation advertises itself as offering its own stock, is seemingly the most direct and logical. The company in such a case merely assigns a certain number of shares to its own treasury and then announces a sale of "treasury stock." The risk of sale and the expense of newspaper advertising and distributing circulars are borne by the corporation itself. Ordinarily this expense is very large, but considering the fact that the stock offered for sale has probably no real value, the expenses of distribution can hardly be said to be excessive.

In the advertisements, the corporation states that it is offering its own "non-assessable, full-paid, treasury stock" for less than its par value. The question naturally arises as to how a corporation could sell full-paid stock to the public for less than what the stock represents on its face. This confusion is the result of an unfortunate subterfuge, of which the majority of corporations are guilty. The laws of a large number of the states, especially those states which would be selected for the corporate home of a company of this character, contain a provision that in the absence of fraud the opinion of directors concerning the value of the property acquired by a corporation is final and unquestionable. When a company is incorporated, it usually takes over certain specific property, upon which the directors pass in judgment of its value. Their judgment is human and can very readily be affected by the optimistic aspiration of the new company. It is perfectly possible, one might say almost usual, for the directors to place a value on the property of the new company far in excess of its cash value. But when the corporation has surrendered stock for this property in accordance with the directors' valuation, that stock becomes full-paid. The price at which that stock shall be sold to the public is an entirely different matter and while the directors at one meeting may appraise the property of the corporation to be worth one million dollars for the purpose of issuing stock, at the next meeting, for purposes of disposing of it to the public, they may appraise the same stock to be worth only $500,000, or even $100,000.[1] Very often the stock to be sold to the public is donated back to the company's treasury, by the irresponsible lawyer's clerks who acquired it as an incident to its issue. The stock then becomes treasury stock, and is sold as such.

Unfortunately this method of selling securities to the public by the corporation, straight-forward though it is, does not appear to be in good repute. Investors have a natural suspicion of a company which not only attempts to conduct its own business, but which also tries to solicit the investment of capital. And this feeling has been intensified into a well-founded prejudice by the fact that fraudulent mining, oil, rubber, and real estate companies have followed this practice. To avoid this prejudice in the effort to assume the form of respectability, corporations wishing to sell their own stock have adopted one of two other methods. Some director, officer, or other person closely connected with the embryo company, serves as its "fiscal agent." The advertisements in which the securities are offered to the public seek to represent the fiscal agent as an independent banker, and not a mere representative or employee of the company and its promoters. Furthermore, the announcements are usually so worded that a reader would be led to believe that the statements contained are made on the responsibility of the fiscal agent rather than on that of the company's promoters or officers. This is done in order to give the impression that an outside person has assumed the independent responsibility properly belonging to a banker, and upon that responsibility is offering the securities to the public. The other subterfuge adopted to enable a prospective corporation to sell its own securities without appearing to do so is the finance corporation. In the actual practice the promoters of the enterprise cause to be incorporated a subsidiary company, the charter of which permits it to deal in stock or other securities. In practice the operation of this fictitious corporation is identical with that of the tactics assumed by the fiscal agent.

---

[1] For the procedure of the issue of full-paid, non-assessable stock, for an amount far and above the value of the property, see the classic case of the United States Shipbuilding Company—Dewing, A. S., Corporate Promotions and Reorganizations, 464 (1914); and Ripley, W. Z., Trusts, Pools and Corporations, 403 (1916).

A fourth method resorted to in the sale of low-grade, worthless, and fraudulent securities is through the agency of a concern whose business it is to exploit the unwary. There exist so-called banking houses with fictitious names, investment companies, incorporated fiscal agents, and the like, who stand ready to distribute worthless securities at an exorbitant commission. Very often the enterprises have a sound economic basis, such as the manufacture of candy or automobile trucks, but are incorporated in such a flamboyant manner, and the stock offered to the investor carries such prohibitively large commissions, that the enterprise is doomed to failure no matter how plausible it may appear. The fact that the enterprise has to some extent an economic basis often gives the advertising material distributed by these fictitious "banking houses" or "investment bankers" a very plausible ring. And furthermore there is usually some clever writer in the organization who acquires a devilish skill in preparing circular advertising matter well suited to deceive the credulous public. For these reasons the fraud perpetrated by these fictitious investment bankers is usually more artistically executed than is the case when the corporation, or its promoters, seeks to distribute the securities by one of the more direct methods heretofore described. The commissions exacted by these swindlers are usually enormous, representing the major part of what the public pays for the securities.[a]

Whatever the method employed in selling highly speculative, low-grade, and fraudulent securities, certain of the devices resorted to in the direct appeal to the public are strikingly uniform. This is true, moreover, whether securities are merely "highly speculative," in which promoters, thoroughly honest in their intentions, but incapable of recognizing the large risks of their enterprise, paint the wonderful investment opportunities afforded by this "great idea," or are downright frauds perpetrated on an unreflecting and credulous public by mischievous swindlers. The point of emphasis is that the risks of the enterprise, whether they are legitimate or illegitimate, are so great that no reputable bankers will jeopardize their business standing by backing it. Unquestionably some of the enterprises offered to the public by the methods described here have merit, but the devices resorted to in exciting public interest do not differ from those used by the most arrant swindlers. It is the old story of the world judging by the company one keeps.

---

[a] One case is typical. The Sterling Debenture Corporation, engaged in the distribution of low-grade securities, sold the stock of a certain electrical device for $10 a share. Its commission amounted to $9 a share. The promoters soon exhausted the remaining $1 a share in salaries and expenses.

And the pity of it is that often men of thoroughly honest intention, with a burning enthusiasm for their invention or their discovery, finding a cold reception from bankers, drift into the hands of swindlers who exploit the simple-minded and honest inventor for their own profit.

-Greed

Appeal to Avarice.—Of all the devices employed in the direct selling of low-grade and speculative securities the most forceful is the appeal to the avarice of the investor. This takes two forms: appeal to the desire for high return and to the speculative instinct.

The possible investor is directly or indirectly promised a rate of return on his prospective investment far above that ordinarily expected from a conservative or even somewhat speculative security. The glamor of the increased income overrules his sound business judgment. There are many excuses offered by the company or its fiscal agents to explain the reasons for the promised large return, none of which suggest the inordinate risk and the plain fact that capital cannot be obtained except by use of these inordinate fictitious promises. The investor is told that "the increased cost of living has made it necessary for the corporation to pay a liberal amount for its money," as if the company were engaged in a philanthropic calling, one of the purposes of which was to alleviate the distress caused by rising prices.[b] Another excuse is the economy of distribution obtained through selling the securities directly to the public. "No large bankers' commissions are included in the selling price, so that the company is able to offer its stock at ridiculously low prices." [c] Often, in order to strengthen his position the promoter casts reflections upon "Wall Street" and the "avaricious horde of robbers who infest our financial districts," [d] in order to show, by contrast, his scrupulous honesty and liberality to prospective investors. Sometimes the promoter's imprecations extend to that specter of the ignorant, "The Vested Interests." [e] A third excuse offered is the general conditions of the money market which are alleged to be very unfavorable to the sale of stocks. This excuse is less frequently used, however, than the other two, because the class of investors to whom the company appeals would not be presumed to follow the conditions of the money market.

---

[b] One company, seeking to sell the stock in a patented fuel, ended an elaborate pamphlet by the following:

"WHITHER? THE PROBLEM SOLVED

"We started out with a Problem—the Problem of the increased cost of living.

"It is the most serious question that today confronts mankind. On its solution depends the welfare of the human race, the progress of the Nation, and individual happiness.

"The increased cost of living must be met by an increased income—an income that will be greater than the outgo.

"Gambling will not accomplish this. Whether you gamble in mining stocks, on Wall Street, or in any other of its myriad forms.

"Speculation will not solve it. Whether you speculate in corn, wheat, or on the Curbs.

"Investments in so-called 'gilt-edged' securities will not solve it—be those securities what they may.

The small investors, who have probably worked very hard for their savings, somehow feel that the great sacrifice represented by their small accumulations entitles them to a higher return than the meager interest rates paid by savings banks. They are easily deluded into thinking there is some connection between the psychological sacrifice of saving and the economic compensation for the saving. They forget that fluid capital

---

"The solution will be found in the purchase of the securities of companies, formed to operate basic patents for the manufacture—not of luxuries but of absolute necessities of life; controlled—not by necessitous inventors, but by men of means and standing; operating—not thousands of miles away from you, but directly at your own door."

[c] "Co-operation between producers, distributors, and investors will result in saving of expense and waste sufficient to divide large profits with all.

"Every time you buy stock from a salesman or broker, you are paying a premium of 20 to 25 per cent, which is unnecessary waste, and would be a good dividend for two years on the money which goes into the Company's Treasury." (Circular letter of a "fiscal agent" soliciting subscriptions to a new oil stock.)

[d] Clinton Collver has very shrewdly said: "The most certain indications of a promotion profitable only to the promoter, are statements that contain some reflection against Wall Street banks and methods. Not that Wall Street is perfect, but the writer has yet to see advertisements of securities abusing Wall Street methods which would stand analysis." [2]

[e] "The misinformation which has been so carefully promulgated by the Vested Interests through subsidized newspapers is now being counteracted by cold facts." (Prospectus of a new oil promotion.)

---

[2] Collver, C., How to Analyze Industrial Securities, 196 (1917).

in the form of money, unlike labor or business ability, or land, is of one and the same nature, whatever its origin, whether laboriously saved by the clerk or merely "set aside for investment" by the capitalist.

Appeal to Speculative Instinct.—Probably the simplest, and in a sense the most elemental appeal, is to the speculative instinct of man. This speculative instinct combines at least three psychological elements, present in lesser or greater degree 1 – in us all. The first is the desire for accumulation, the fundamental instinct for possession. The second is a kind of self- 2 – conceit, the feeling that somehow we, individually, are cunning enough to anticipate and profit through the future. It is a kind of self-assurance, the *amour propre* of Roche- 3 – foucauld. The third is the natural inclination to get something for nothing, the temptation to take a cross-cut,[f] the same characteristic which is so important a stimulus to labor-saving invention, and, broadly, one of the impelling causes underlying the technical progress of the race.

Those who seek to defraud the small investor through the sale of worthless securities understand well the full significance of the speculative instinct. Four main devices are used to play on the possible investor's imagination: the "get in at the start," the "big development," the "special bankers' syndicate," and the "other marvelously successful companies." Each one of these devices warrants careful analysis.

The simplest and oldest is the claim that the stock should be bought while the company is just starting, as an advance in the price of the stock will soon occur.[g] The "big develop-

---

[f] Well illustrated by the opening sentence of a letter dated February 1, 1916, by one P. B....., secretary, 9 ...... Street, New York: "Why work laboriously all your life when, by a lucky stroke, you can quickly earn a fortune? We now offer you this great opportunity. Join our Company and secure an investment that will make you rich." The name of the company was not disclosed in the letter.

[g] The following are a few typical extracts from current promotion advertising matter:

"It is very much to your interest to join me now. In the oil business, fortunes are made over night and the small investor of today is the millionaire of tomorrow. Stock of a company operating near us in ment" bait has been used in many forms. If it is an oil company, it is invariably a well "just coming in";[h] if it is a min-

---

Texas, recently rose from $10 per share to $20 per share, practically over night. Act today!" (Elaborate prospectus of an oil company.)

"This stock should then pay over 50 per cent in dividends annually. . . . Take advantage of this opportunity. Buy today at par, $5 per share, for we firmly believe that this same stock will ultimately sell at many times $5 per share, for we intend to list this stock. . . . Remember the Price of the Stock Will Soon Advance to $7.50 per Share. This is Your Opportunity to Increase Your Income. Will You Become a Part Owner in the X & Y Distributing Company and Its Profits?

"Act at Once! Now!!!"

(Circular letter addressed, "Dear Mr. Dewing;" offering stock of a "breakfast food" company.)

"Before making application to list this stock and start an advertising campaign to create a market for it at $1 a share or over, we are giving one thousand investors an opportunity to become shareholders at the low price of 30 cents per share. One million shares of stock have been set aside to which the one thousand investors may subscribe with the privilege of paying for it in small monthly instalments." (Circular letter offering new oil company shares.)

"It is proper, however, that we should tell you that although this offer has attracted wide and favorable attention it will be withdrawn at an early date. Investors familiar with the industry, and aware of the big fortunes already made in the business and now being made, quickly recognized and took advantage of the splendid investment opportunity our offer afforded, and it is now probable that the amount of stock we arranged to sell will be disposed of sooner than we anticipated." (Circular letter of president of a new moving picture film company to a prospective woman investor, dated April 14, 1916.)

"Just as soon as the amount of stock set aside to be sold under the liberal arrangement offered you is disposed of, the Common stock bonus offer will be withdrawn. The shares are selling rapidly and it may be possible for us to advise you of exact date of withdrawal of our offer.

"Under the circumstances you will appreciate the necessity of prompt action." (Follow-up letter from the same source to same woman, dated April 20, 1916.)

"The total amount of Co-operative Securities stock offered for sale was only 50,000 shares. It has been decided to accept no subscriptions after September 15 at $1 per share, and in all probability this offering will be oversubscribed before that date, so if you wish to secure some stock at $1, we advise you to answer by return mail. We reserve the right to reject any subscriptions, and not more than one thousand shares will be sold to any one person." (Advertising circular dated September 3, 1918.)

[h] "Mayfield Well No. 2 Will Mean Another Over-subscription. Wire Your Reservations at 30 Cents!

"Mayfield Success Now Places Just One Question Before You: How Many Mayfield Shares Do You Wish at 30 Cents Each?

"Success is its own argument!

ing company it is "the big vein," just a few feet beyond.[i] With industrial and smaller manufacturing enterprises, it is usually some particularly favorable event about to take place.[j] In the "special bankers' syndicate" device the reader of the advertising material is made to feel that he (or usually she) is being given special prices in advance of a public market for the securities.[k]

"The Mayfield Oil & Refining Company has passed out of the class of future possibilities.

"With Well No. 1 a gusher—with Wells 2 and 3 likely to even surpass Number One—with five new wells being started—with the 2,000-barrel-a-day Refinery being rushed toward completion (and its earning possibilities are placed by President Mayfield at $3,000 a day!)—with 1,501 acres and More leases to be added—what is there to wait for?

"Since our first offer of Mayfield Treasury shares, there has been just one Forward March!!

"Now we are bringing the financing of the Mayfield Oil & Refining Company to its final stages; it will be completed by the coming holidays!

"On December 8, 1917, there will pass from you the Last Opportunity of buying Mayfield Treasury Shares for 30 cents each!"

[i] The following are the opening paragraphs of a circular distributed under date of May 20, 1916. The letter was headed:

January Jones
Mining Investments
Reno, Nevada

To My Clients: Confidential

This will probably be my last letter to you—pending an authoritative declaration from the Rochester Merger Mines Company, that will reveal certified evidence of overwhelming ore bodies in the mine second to none, which are now being privately proven up in advance of public confirmation—merest truths of same only having been hinted at in the Western Miner.

This substantiated evidence will emblazon Rochester Merger Mines throughout America, and galvanize into action the public, who will rivet their support to Merger shares with 'jack-hammer' speed the minute this corroborative mine data is forthcoming—sending the price thermometer to blood heat.

Therefore, I am taking Time by the forelock to acquaint you, my client, of this anticipated early action—in order that you may be enabled to make maximum profits from the momentous-in-hand move by placing your immediate order for Merger—now—before the buying public gets wind of events.

[j] "This Company Expects to Soon Begin the Erection of a Big, Modern, Concrete-and-Glass Factory." (Advertising circular of a new manufacturing company.)

[k] The following afford excellent illustrations!

"Oil—Gold—Independence

"Special Limited Pre-organization Promotion Syndicate Offer

"This is to advise you that you have been included among those whom we herewith invite to participate in a strictly ground floor inside proposition, such as is usually confined to bankers, brokers, and large capitalists only.

Recital of Successes of Other Ventures.—Perhaps the commonest device, and in a sense the most appealing, is the description, carefully worded, of other marvelously successful companies whose stock might have been purchased by the small investor during the promotion period. If it is an oil well, stories of clerks, postmasters, day laborers, who purchased shares of some "bonanza" oil company are told in dramatic fashion.[1] All such anecdotes—some of them doubtless true—

"A pre-organization syndicate has been formed by the undersigned to underwrite the stock of a large oil company, whose capital will be sufficiently large and whose management will be thoroughly experienced and capable as to guard against the usual hazards of this highly speculative business that has brought fortune and independence to so many small investors."

Or again:

"To assist in the development of the practically unlimited oil fields of the Gulf Coast district, a new company will soon be formed, financed by the .... Securities Company. Previous to the formation of this company however, we are going to give to a limited number of people an opportunity to subscribe to shares in the pre-organization underwriting promotion syndicate. . . .

"Do you wish to join this Underwriting Syndicate? Do you want to share the promoters profit? Do you wish to help your nation produce the required amount of oil? Do you wish to invest your money where you have a guarantee of a profit of 25 per cent within six months, with an opportunity to make practically an unlimited amount of money on a very small investment? . . . Anyone joining our Bankers Underwriting Syndicate (shares in which will be offered in a very short time) will be guaranteed a profit of 25 per cent on their investment in 6 Months' Time, as well as the opportunity to share in the strictly Inside Offering, which is usually limited to a very wealthy class and seldom participated in by anyone except brokers, bankers, and their very wealthy friends.

"The subscription books for the special allotment of pre-organization shares in the Bankers Underwriting Syndicate will not be open for several days. But if you wish to be sure of participating in the benefits of this syndicate after reading the enclosed letters from our clients, fill in the enclosed blank telling us how much you will be willing to invest in a syndicate where you are guaranteed against loss, and where the possibility of profit is Simply Unlimited. This Is an Opportunity You Can Not Afford to Overlook."

[1] "A man who owns three shares invested $300 in the stock of an oil company. Then came a speculator who offered a few more dollars for the three shares, and the owner accepted the offer. He hastened home to get the certificates. Then he started for the door, whereupon his wife became the star performer in the little drama, her part of the dialogue being as follows: 'Now, you put those certificates right back in the bookcase and don't you dare offer them for sale; they may bring us an income some of these fine days.'

"Well, the shares went back into the bookcase. The company struck oil. Oh, yes, the name of the corporation is the Trapshooters Company.

are closed by the significant words: "If you want to share in the marvelous profits of the oil industry, then buy the treasury stock of ———— immediately. Don't wait." Often such a direct command is followed by another equally dramatic, but pathetic, anecdote of some man who was offered a bonanza stock but followed his wife's advice and put the money in the savings bank or a parlor rug![m]

But the imagination of the promoters does not always confine itself to the particular industry in which the new company is engaged. Any other successful, well-known enterprise will answer the purpose.[n] Until the last few years Calumet and

---

Each morning the owner of the three shares gets a dividend of $500; in other words, he gets his investment returned to him each sixteen hours of the day. So, now, we know why people buy shares in oil companies.

"Oil investments are all right. All that a person needs to do to make money in that line is to buy a low-priced stock in a company which is known to be certain to bring in production. That's all there is to it."

"A railroad clerk's wife, Mrs. C. A. Andrus, invested $84 in oil stocks and was paid back $2,288.50."

"Last June, Chief Jackson, of Des Moines (Iowa) police, invested $165 in oil stock. Just before Christmas he received a check for $5,000."

"A banker, J. T. McCarson, picked up 300 shares of oil stock for $3,000. Only a few weeks later he sold out for $106,230."

[The above are paragraphs from an oil company's prospectus.]

[m] "A Kansas City man wrote a check for $200 for Trapshooter shares. Later at the suggestion of his wife he tore up the check and bought his wife a set of furs. Those furs cost him exactly $83,200." (Advertising matter distributed August, 1918, to sell stock in an Oklahoma oil company.)

[n] The following paragraph from Clinton Collver's able and illuminating little book very graphically illustrates this.

"In spite of all the warnings of financial history the most toothsome bait spread by promoters of the wily variety is the glorious history of similar enterprises. Before me is a full-page advertisement of a company which at the very height of the bull market of 1916 proposed to manufacture paper from sugar cane refuse. No earnings were presented, no list of officers or directors, not the name of a single individual except Mr. Alexander Graham Bell, Queen Isabella and Columbus, no balance sheet, no plant in operation, nothing to prove that such a process is practical, and yet the heading of a page of the *New York World* for Sunday, October 15, 1916, reads, 'Do you want to turn $100 into $15,000?' with a subtitle, 'Or have a $10 bill grow into the price of a good automobile?'"[8]

---

[8] Collver, C., How to Analyze Industrial Securities, 193 (1917).

Hecla Mining Company's stock was invariably used by mining promoters, but it is not quite so popular an illustration now, although it is still extensively used. In the exploitation of a new invention, the early history of the Bell Telephone Company is recounted dramatically, although the fact that the men who first helped Bell were his friends, and not the public, is omitted. These are the commonest illustrations, although they are usually supplemented by other less well-known enterprises which are said to have brought large profit to the early stockholders.[o] In many cases little care is used to see that illustrations cited bear directly upon the kind of enterprise for which capital is needed. Copper mines and sewing machine companies are given as reasons for investing in oil companies and rubber plantations!

Appeal to Vanity.—In addition to the appeal to the investor's avarice and speculative propensity, some shrewd promoters have recently made a direct appeal to the investor's vanity. This appeal is not so potent as the appeal to the investor's avarice, but it is certainly more original and can be made more dramatic. It is especially significant with prospective women investors. In fact, the writer has noted nine cases in which this form of appeal is used. All are from advertising matter addressed to women. Sometimes the promoter plays on the investor's social or professional standing, as when the stock is offered to a "selected list of teachers, of which you are one";[4] or when "it is the desire of the directors to dispose of the first block of treasury stock to men and women prominent in social life. You are urged not to lose this privilege of securing a permanent income. Please fill out accompanying blank, which is for your own personal use, and is not transferable."[5] Sometimes it plays on the prospective investor's high opinion of his own ability, as when the prospectus states, "You are selected from a large group because of your known skill in choosing conservative, yet profitable investments. The privilege of subscribing has been limited to the leading persons from your state. Unless you reply within thirty days this privilege will be withdrawn, and will go to someone else."[p]

---

[o] The writer examined at random a selection of the advertising matter of twenty-five promotions of the type here described. They included nine mining companies, six oil well companies, and a wide variety of other enterprises: Life insurance, moving picture, fur farm, breakfast food, etc. Of the entire twenty-five, fourteen cited either the early history of the Calumet and Hecla or the American Telephone and Telegraph Company. Six cited both. Besides the two illustrations just mentioned, the Singer Sewing Machine and the Mergenthaler Linotype were the commonest, especially among small industrials. One elaborate booklet distributed for the purpose of interesting its readers in a patented fuel, brickets, quoted the success of nineteen different enterprises under the significant caption, "The Investor's Standpoint." These included the Bell Telephone, the Mergenthaler Linotype, the Welsbach Company, the Singer Manufacturing Company, Swift and Company, Postum Cereal, the American Chicle Company (chewing gum), Sen Sen Chiclet Company (penny-in-the-slot confections), the Thompson Houston (a predecessor of the General Electric Company), the Eastman Kodak Company, the Westinghouse Air Brake Company, the American Radiator Company, and the Fairbanks Scale Company. No instance of fabulous profits cited had anything to do with brickets, coal, or any other fuel.

---

[p] The organizers—some of them prominent business men of their state—of a new life and accident insurance company adopted the device of inviting one thousand persons, distributed among the states, to buy equal "ownerships" in the company. "This is not," stated the advertising booklet, "to be simply a company, but is destined to be a RECORD COMPANY; AN AGGRESSIVE, LIVE, BUSINESS-GETTING 'OLD LINE' COMPANY; a company which will reflect credit on its owners and afford them a profitable investment for some of their spare capital. . . . To this end, the Organization Committee is making its selection of One Thousand Business and Professional men throughout the United States, each of whom may, through invitation, acquire an Ownership in the Company."

After a tedious review of the advantages accorded the prospective "patron" and a review of life insurance companies that succeeded—without mentioning those that failed—the booklet goes on to say, "And before the Original Owners of these enormously profitable life companies DID go in and put up their money, they no doubt hesitated, JUST AS YOU ARE HESITATING NOW. This is human. THERE ARE A GREAT MANY MORE MEN WHO KNOW A GOOD THING WHEN THEY SEE IT, THAN THERE ARE WHO HAVE THE COURAGE TO GRASP IT. While one acts, a hundred others will lack decision and let the opportunity pass. This is why the good things of this world are so unevenly distributed."

Such wisdom is finally closed by the injunction:

"Applications for Ownership are being filed and considered in the order of their receipt. Since the number allotted to your state is small, it will therefore be well to act with as little delay as possible after you have finished reading the 'Booklet.'"

---

[4] Prospectus of a Diamond Mine in Arkansas sent to certain women instructors of a woman's college.

[5] Prospectus of a moving picture film company.

In rare cases the prospective stockholders are offered special inducements, such as the purchase of the company's products at cost,[q] in others the Scriptures are liberally quoted.[6] One

---

The following is an example of the kind of invitations that are used.

"COLONIAL MOTION PICTURE CORPORATION
Chartered by the State of New York
Capital $2,500,000
286 FIFTH AVENUE
NEW YORK

To Mrs. Frances R. D——

The undersigned extends to you a cordial invitation to inquire concerning your privilege to secure an ownership in the Colonial Motion Picture Corporation.

Only *92* citizens of your state may acquire these ownerships and receive the cash profits which go with them.

The enclosed inquiry card, mailed promptly, will bring you full information.

Respectfully,
JAMES D. LAW,
President.
(See within)"

Owners admitted by invitation only
Ownerships limited to two thousand five hundred
Invitation Number *640*

"(See within)" calls attention to a paragraph on the reverse side as follows:

"The American motion picture companies, whose combined capitalization is only $3,066,000, made net annual earnings of $1,400,000. This is over 45 per cent, net, on their capital stock."

[q] "To the 1,000 Charter Owners of the ...... Motors Corporation is extended the privilege of purchasing their cars direct from the Company *at the exact cost of manufacturing.* This does away with all of the dealer's commission and the Company's profit on these cars at a saving to you of about thirty per cent—or, as estimated, approximately $255 per car. The exact price at which cars can be sold to Owners under the provisions of this offer will be determined by an audit of Certified Public Accountants.

"This offer applies only to the 1,000 *original Owners* who hold or have subscribed to complete Ownerships of $500 each. Other holders to whom Ownerships may be later sold or otherwise transferred, either in whole or in part, cannot take advantage of this offer." (From the "Book of Opportunity," issued by a new automobile concern.)

The following letter at least "has a character":

"LEAVES THE MOUTH WITH A LASTING COOLNESS"

"HAS A CHARACTER"
SPEARMINT TOOTH PASTE
W. W. Wrigley

WRIGLEY PHARMACEUTICAL CO.
Boardwalk Near Million Dollar Pier
Atlantic City, N. J.

January 14, 1926.

Dear Sir:

We are now beginning to market SPEARMINT TOOTH PASTE in a very big way. We have already run advertising and selling campaigns in the Philadelphia and the Hartford, Conn., territories. The results obtained favorite device is to reproduce letters indorsing the enterprise or the men behind it,[r] and in a few cases the indorsement of a local bank is reproduced. But bankers' indorsements of unknown propositions are given very scantily. In the rare cases of bank indorsement, it is probable that the good-will of the local bankers has been obtained through liberal gifts of stocks to the prominent officials.

---

have greatly exceeded our expectations. Other territories are scheduled to be opened immediately.

In addition to the regular advertising, such as newspaper space, billboards, mailing samples direct to the consumer, detailing the dentists, etc., we have incorporated the following plan:

To a *limited number* of *highly representative people we offer the opportunity of becoming a stockholder* AT THE GROUND FLOOR PRICE. If you will send your check or money order made out to WRIGLEY PHARMACEUTICAL Co. for $10.00, we will have issued to you or your order *10 shares of our Class A stock,* par value $1.00 per share. We will also send you *two dozen tubes of* SPEARMINT TOOTH PASTE, *our regular 25c size* for your home supply. The total value of this offer is $16.00, but will cost you only $10.00. This plan is strictly an advertising one and *is very costly to the Company.* Due to this and to the limited amount of stock set aside for the plan, *we must limit each individual* to one $10.00 purchase and *reserve the right to reject any or all purchases.*

The WRIGLEY PHARMACEUTICAL Co. is incorporated under the laws of the State of Delaware for $1,500,000.00. Its stock is divided into 1,000,000 voting and 500,000 Class A non-voting shares, all of which is capital stock, full paid, non-assessable and *full participating as to dividends* with par value of $1.00 per share. The business of the Company is solely that of manufacturing pharmaceutical preparations, chiefly SPEARMINT TOOTH PASTE. *935 bankers are stockholders in this Company.*

Very truly yours,
WRIGLEY PHARMACEUTICAL Co.
W. W. Wrigley,
President.

[r] One batch of advertising matter devoted to selling an oil promotion contained a letter from a farmer in Cortland, Nebraska. By the letter head, he dealt in "Registered Short-horn Cattle" and "Thoroughbred Poland China Hogs." The letter began with the sentence:

"Relative to what I think of your Oil Company; after a thorough investigation covering two weeks of going over your properties and two days at your Chicago office, I can honestly say I believe you have the best proposition from the investor's point of view that has ever been offered to the public." And ended with the postscript:

"P. S.—I quite agree with an oil man who told me that your proposition cannot be over-estimated or exaggerated; it is impossible to even begin to realize the facts without seeing them."

Undoubtedly a dealer in "Poland China Hogs" is well qualified to pass judgment on an oil property.

---

[6] One prospectus of an oil company quotes Proverbs 10: 4, and Matthew 25: 14-30, in succeeding paragraphs.

"Sucker Lists."—One naturally inquires as to the methods pursued in reaching the unsuspecting investors. Devious and dubious are these methods, but the chief is the so-called "sucker list." There are organizations which collect names of men and women who, for one reason or another, may be presumed to be susceptible to the elusive advertising matter distributed by the promoters of highly speculative and worthless securities. Two main sources supply the names: men or women who at one time or another have bought such stocks, and men and women in the various professions. To get the former, the stockholders' lists of defunct and low-grade companies are ransacked. Once a woman buys a few shares of a mine or oil well, her name gets on one of these "sucker lists" and she is pestered for years after by advertising matter of this kind. The other source is the published lists of the professions and to some extent well-to-do farmers and highly paid artisans. The physicians, teachers, dentists, and clergymen constitute a happy hunting ground for these economic pirates. Women school teachers afford perhaps the most fertile field; as a class they know nothing about business or investment; they usually earn a little more than they spend; they are much concerned with laying aside a competence for their old age, are credulous, and easily deceived by men familiar with business, and are accustomed by long habit to making decisions on practical matters without consulting other people. Often teachers and clergymen are seduced by some wily promoter into turning salesmen for a fraudulent security, thinking the enterprise sound and honestly managed. Acting under this delusion, they persuade relatives, friends, and associates to buy worthless stocks.

The question naturally arises as to the proper means of selling securities of highly speculative enterprises if successful direct selling requires the use of methods now frowned upon because used by swindlers. One observation is surely true. The highly speculative enterprise should not be backed by the general public. It requires too much investigation and discrimination.[7] The chances of loss are too great. For this reason the stock of a highly speculative enterprise, no matter how meritorious in itself, should not be advertised for indiscriminate investment. It should be backed in the early stages by a group of men of wealth who have the time for a careful and exhaustive investigation and who, should their investment prove a loss—as it probably will even after the most painstaking investigation—are able to stand the sacrifice. But to take the savings of hard-working men and women to develop a speculative undertaking, no matter how meritorious in itself and honestly managed, is little short of a social crime.

---

[7] For an excellent, brief discussion of the investigations necessary for a highly speculative enterprise, see Conyngton, Hugh R., Financing an Enterprise, Chaps. VIII, XII, and XIII (1921).

BOOK III

THE ADMINISTRATION OF INCOME

Gordon Crandall.
Springville, Utah.

CHAPTER I

THE SIGNIFICANCE OF ACCOUNTING THEORY IN FINANCE

Accountancy and Business Policy.—As soon as a business has been established, the financial problems, so important in themselves at the beginning, become resolved largely into accounting problems directly pertaining to the administrative policy of an active and continuing business. This is because all values of a going business must be computed indirectly. At the time of promotion there may have been a correspondence between the economic value and the cost of the property acquired by the new corporation, but no sooner is the business under way than changes in the value of its property necessarily occur. Accountancy interprets these changes in economic value in terms of money value. It is the science of fact underlying all questions of the financial policy of the actual operation of the corporation.

Fundamental Presupposition of Accountancy.—The science of accountancy is primarily a system of logic. It rests on one absolutely fundamental presupposition and three postulates arising directly out of this. The fundamental presupposition of accountancy is that all economic values can be expressed in terms of a common unit. This unit is money. Following upon this presupposition there are these three postulates: (1) that there can be a money value fixed to correspond with every economic value; (2) that this fixed money value changes in a definite and determinable ratio in accordance with changes in the corresponding economic value; (3) that any one economic value in a series of changes may be represented by the corresponding money value.

Accountancy is, like all mathematical sciences which assume a correspondence between number and material things, essentially abstract. It chooses to neglect all aspects and qualities of the material things with which it deals, except the mere correspondence to money value. In the same way, the science of celestial mechanics neglects every quality of its objects except forces of attraction exerted at physical points. Accountancy, in practice, seeks to fix a money value on every form of value used in business and to show what are the changes in the aggregate money values of any one business involved in the buying and selling of its stock of goods, the decay of its buildings, the growth in popularity of its trade-brands, the obsolescence of its patents, and the countless other changes which occur in the ordinary course of the operation of any business enterprise. The managers must know of these changes in terms of the corresponding money values, that they may determine whether or not the business is a success, and at what points are its weaknesses and its strengths. Business success is shown by an increase in money value. This increase is the profit. Part of the profit may be withdrawn for the private use of the proprietors and part should be retained in the business as invested surplus or specifically labeled as reserves. In all this computation of profits and the amount to be withdrawn from the business, the principles governing the determination of the money equivalent of the economic values of the business are of paramount importance. As these principles are the science of accountancy, one understands its importance in determining the financial policy of any business.

Balance Sheet and Income Account.—Accountancy leads to two modes of representing a business enterprise. One is the correspondence between the money value and the economic value of a business at any one moment of time. It is a statement of the money equivalent of the various values of the business contrasted with the various claims against the business. The balance between these two arrays of values, the one positive and the other negative, gives the net worth of the business, provided it is conducted as a proprietorship. If it is conducted by a corporation, the balance between the positive and negative values must be increased by the original and subsequent contributions of capital by the owners in order to give the actual net worth of the business. This balance of positive and negative value, under whatever form it is presented, is familiarly known as the balance sheet.

The other mode of representation is a recapitulation of the progress of the business. It is a statement of the steps by which the money equivalent or balance sheet of a business at one moment of time is changed into another money equivalent at a later moment of time. It is the general income account, embodying all the increases or decreases in economic value sustained by the business during the time intervening between two balance sheets.

The Balance Sheet.—The balance sheet is an instantaneous photograph of the business; it presumes a balanced equilibrium between the various forces making for the increase and the decrease of the economic values of the business. It presumes a momentary static condition; but since all business enterprise is essentially dynamic, the balance sheet can be theoretically true for only a single infinitesimal unit of time. It is thus a cross-section of the stream of the business, as the general income account is a longitudinal section between any two cross-sections or balance sheets.[a]

goo

The balance sheet should express, so far as figures permit, the wealth represented by a business at any one moment of time. This wealth is in various forms, representing not only property actually in hand, but also the rights to receive property in the hands of others at the moment of time represented by the balance sheet. In addition, persons outside of the business probably have rights against it, represented by property being used by it. It is impossible, therefore, to reduce the wealth of a business to a list of pieces of property on hand, for any going business both owes others and is itself owed by others. Moreover, much money spent in the past has gone for intangible values, such as patent rights, franchises, trademarks, which have a very distinct economic significance, although these values are not to be counted and appraised with the same precision as pieces of material property. On the other hand, the business may be called upon to meet certain obligations, not yet due, but for which it may be liable in case of the default of someone else.

---

[a] These theoretical considerations may be expressed more simply by a few symbols. Let the series $A, B, C \ldots\ldots M$ represent the various economic successive values of any business enterprise. Their money equivalents may be represented by the series $a, b, c \ldots\ldots m$. Now the balance sheet is merely a member of the second series expressed in some degree of fulness. The general income account is merely the difference in money equivalents, between any two members of the second series—as $b-a=v$. v is positive if the business has resulted in a profit, negative if in a deficit.

All these intangible values and contingent liabilities should be expressed in the balance sheet, because they are all significant in determining the true wealth value represented by the business at the time. The balance sheet is thus a summary of the property and rights actually held by the business and those which others hold against it. For the sake of clearness, the property rights owned by the business—its assets—are grouped together on one side, and the property rights held against it—its liabilities—on the other.

The Income or Profit and Loss Account.—The general income and expenditure, or profit and loss account, represents a summary of the changes that have occurred between the times at which any two balance sheets are taken. The period is arbitrary. The unit of one year, ordinarily chosen, is used merely as a matter of convenience—if, for example, the business varies with the seasons a period of one year includes all variations. The purpose of the income statement is to obtain a true conception of the actual net profit or loss. It involves difficult and intricate computation. From the gross revenue or receipts of the business, the direct expenses—labor, materials, rent, and the like—are first subtracted, leaving a balance which is the gross profit. This is easily computed. From this, the net profit is obtained by a series of adjustments. It is these adjustments which involve the difficulties of both accounting theory and accounting practice. These difficulties arise chiefly in transferring intangible economic values into their money equivalents. In spite of the strictness and apparent rigidity of figures, profit or loss is at best an estimate, subject to all the inherent errors of our human judgment. The science of accountancy merely lays down general principles presumably valid in all special cases, but in the end these principles embody merely the best reconciliations possible between our ordinary business rules-of-thumb and the strict logic of a deductive science. This reconciliation between practice, as laid down by the average business man in the estimation of his profits and the theory of absolute profit, is productive of endless confusion.

Gross Profits and Net Profits.—The average business man is uncritical. Profit to him represents the difference between the cost of his goods and the amount he receives for them after he has made adjustments for what he had on hand at first and what he has left. But this conception of profit is not true unless the phrase "cost of goods" is given a wider significance than is customary among many business men. The goods have cost not only what was paid for them but also what was lost in the business through handling them. The buildings, machinery, tools, and all the fixed assets have been worn and have grown less valuable during the time in which the goods were being manufactured or offered for sale; many accidents and unforeseen losses have occurred which must be included among the expenses of doing business. So that the specific cost of the goods should be augmented by a series of invisible or insensible costs the interpretation and expression of which in money values is at best inexact. The degree of inexactness with which the money equivalent of the invisible costs can be estimated will vary according to individual conditions quite beyond the control of the accountant. All this is summarized in the idea that the gross profit must be reduced by a series of adjustments which are made specifically to the summaries of assets and liabilities constructed at the time the gross profit is computed. These adjustments may be looked at either as adjustments to the values carried forward, from balance sheet to balance sheet, of the assets and the liabilities, or as adjustments to be made to the gross profits to obtain the actual or net profit computed on an accrual basis.

Adjustments Necessary to Determine Net Profits.—It is quite important to note that in this and succeeding discussions of the computation of net profit the purpose is merely to indicate the theory of the adjustments necessary for the managers of a business to be assured of a reliable basis of profits which may determine their financial policy. There is no attempt to indicate the details of accounting practice. In accounting practice the procedure really consists of making a series of revaluations of the various assets and liabilities—a process of revaluation which requires that a series of reserves be set up to express the difference between what is apparent from the previous records and what is actual from an examination and study of present conditions as they exist at the time represented by the new balance sheet. Some of these reserves are capable of quite exact determinations, others are the vaguest approximations. These revaluation adjustments summarized are:

Reserves Arising through Revaluations of Assets:[1]

(a) Reserves against decline in value of real property owned in fee.

(b) Reserves against decline in value and ultimate extinction of rights to real property—leases, traffic agreements, terminal rights and rights over transmission lines or life lines.

(c) Reserves against decline in value of inventories.

  1. Raw materials held under contract, not protected by hedges, or where no hedges can be taken.

---

[1] For an excellent brief discussion of the general subject of reserves, see Financial Handbook, section on Audits and Accounts (1925).

2. Goods in process.
3. Finished goods under contract subject to cancellation.
4. Finished goods manufactured for stock.

(d) Reserves against the decline in value of investments—that is securities of companies in which the corporation exercises at most an indirect sort of control.

(e) Reserves against the loss on receivables.

(f) Reserves against extinction of patents, the decrease in value of trade-marks on the becoming obsolete of goods protected by trade-marks.

(g) Reserves to care for the gradual extinction of constructive assets—such as deferred charges.

Reserves arising through revaluation of liabilities are not as important or significant as those arising through the revaluation of assets. A liability, such as a bond due or an account payable, is usually definite and precise in amount and its due date is certain. Yet even here there are a number of adjustments that must be made which represent revaluations of admitted liabilities in order to reach the actual value as it exists at the time. These include such adjustments as those required by accrued, but as yet undetermined, taxes, deferred credits—such as premium on bonds—prepaid insurance and rent.

Many of these adjustments are made as a matter of routine accounting practice, and their existence—although perhaps not the method of computation—requires no comment. There are, however, two independent sets of adjustments which deserve special attention as matters of financial policy. They are those which are concerned with the wearing, wasting, and aging of physical property and those which are concerned with the unforeseen and unpredictable contingencies that arise in any business. After these various revaluation adjustments have been made the disposition of this profit, in whatever form it appears, becomes a matter of administrative policy.

CHAPTER II

THEORY OF COMPENSATION FOR WASTING ASSETS

Adjustments for Wear and Tear—Basis of Classification.—The mere aging of physical property requires its periodic revaluation. Consequently there must be a series of adjustments made every time a balance sheet is drawn up or gross profit computed resulting from the wear, breakage, and the deterioration of the physical property that is employed in the business. These losses can and must be offset by certain deductions from apparent earnings, else the business will, in time, destroy itself. The deductions should be of such amounts that the value of the property employed in the business bears a definite and easily determinable relation to the value at which it is carried on the books of the business. In other words, the original investment in the physical assets of the business increased by the actual additions and decreased by the direct losses, not otherwise compensated for, will equal the present value, provided these several adjustments shall have been made. It might be possible, and it would be more logical, if these various adjustments due to the wear and aging of physical property were classified according to their causes. Such a classification, however, would subserve but little the practical necessities of business. The important things for the business man and the accountant are: (1) the ease with which the accounting adjustments may be made; (2) the relative accuracy with which these accounting adjustments correspond to the varying changes in economic value.[a] As a result of these practical considerations, the various accounting adjustments covering the wear and aging of property may be grouped into three classes—repairs, depreciation, and obsolescence.

---

[a] The entire science of accountancy is a system of logical method. As such it is a normative system of formal procedure. In such a system the form of the classification of its units is the determining category rather than the substance of these units. The form of a classification of these units may rest either on the causes which necessitate them or else on the con-

Repairs, Depreciation, Obsolescence.—Repairs represent the costs of replacing broken and worn equipment, when it is clear that the replaced part has a relatively short period of usefulness. Its cost is paid for directly out of the current earnings, and it is presumed that the basic capital of the enterprise is merely maintained, not increased by the repair. Depreciation is the adjustment to the value at which physical property is carried which represents the insensible loss in useful value sustained by all equipment which cannot be compensated by repairs—the slow crumbling of a foundation or the insensible oxidation of an iron casting. As it cannot be directly compensated for by any specific expenditure during the current operation of the business, it must be offset by setting up a reserve which is subtracted from the gross profits. The fund so created, although invested in various forms of property useful to the business, may be employed to acquire the new equipment, when the old must be replaced, without any severe dislocation of accepted values. That is, when the foundation has entirely crumbled away or the casting entirely gone, the normal yearly operation of the business will have enabled the managers to build up a fund sufficient to pay for the replacement. Obsolescence is an adjustment required by the simple fact that tools, machinery, and similar material equipment pass out of date before their apparent usefulness has ceased—before

---

venience of their use in the practical exigencies of business procedure. The first may be called the "causal" and the second the "pragmatic" form of classification.

In a causal classification of the adjustments necessary to revalue the assets and liabilities and to transform apparent profits into actual net profits the basis is: "Why is the adjustment necessary?" In a pragmatic classification the basis is: "How may the adjustment be most easily and accurately computed?" While the former may appear at first sight the more worth while—and it is, perhaps, in the strict logical theory of the science—the latter is of greater value in the practical estimation of profits, both from the point of view of a science of finance and from that of business common sense.

their full life has run. Like depreciation, it must be compensated for by the creation of a reserve through making deductions from gross earnings. A fund so created may be drawn upon when it becomes wise to discard a still serviceable machine in order to replace it by one of more modern and efficient construction.

It will be observed that these three indirect costs or charges against profits can be estimated with varying degrees of accuracy. The costs of repairs can be exactly stated. It is known with a certainty, provided some precise method of charging repairs is adopted and the books of record are correctly kept. Experience can give a fairly accurate basis upon which to judge of the length of life of tools and buildings, but any estimate must necessarily be less accurate than the specific payments for repairs. Obsolescence can be predicted much less precisely, because a new invention may render useless machinery recently installed. Yet if a large number of machines of many kinds are used, it is probable that the so-called "law of averages" will enable the engineer of the company to estimate an average obsolescence constant with something approaching an intelligent guess. It is this difference in accuracy in determining the three charges that makes the use of this particular classification expedient.

There is no intention of justifying the use of precisely these three charges due to loss of value on the grounds of ultimate truth. In an earlier note it was pointed out that the classification was pragmatic only. It does not pretend to reach causes. Yet some such classification certainly introduces clearness in the accounts by removing the confusion between accurately determined adjustments and mere approximations based on intelligent guesses.

Treatment of Repairs.—The repair charges are definite because they can be measured over a given interval of time. They should include only those replacements which are not likely to be of value beyond the period chosen for the basis of computing the earnings. This period is usually a year. We may say, therefore, that in the practical procedure of current accounting methods, the gross profits of the business should be charged directly and specifically with all replacements and repairs which are not likely to have an effectiveness beyond a single year. The classification of repairs is, therefore, a matter of engineering judgment, on the essential correctness of which the accountant is dependent.

This treatment of the repairs does not accord with the usual practice. If this method were carried out strictly, it would result in some rather unusual charges. A light of glass in a factory building is broken by a snowball thrown by an over-strenuous urchin. The reasoning given above would require that the replacement of the light be regarded as a true replacement and not as a repair, because its usefulness would extend beyond a year. Strictly speaking, the reasoning requires that a reserve should have been set up, to which this particular replacement should have been charged. However, in actual practice the cost of setting a new light of glass would be regarded as a repair and immediately charged off. It is too small to bother with. In other words, in the actual practice of business men all repairs and actual replacements that do not cost very much are considered as repairs; all that do cost a considerable amount are considered as replacements. In brief, the distinction between repairs and replacements given in the text above depends on relative time; that employed in practice depends on relative cost.

There is no doubt but that the common practice of considering as repairs all replacements of low cost, irrespective of their period of usefulness, has the great advantage of simplicity and ease of calculation. Yet it has no logical basis. The important pragmatic distinction between a repair and replacement is that the former is a charge on the earnings of a single year while the latter is a charge against the earnings of several years. The distinction is therefore one of time, and time only. It has nothing whatever to do with the cost of the installation—

whether a pane of glass, a new turbine condenser or a new chimney. However, convenience is a sacred canon to the practicing accountant, and the amount of the expenditure will probably remain as a ground for defining repairs.

No "Reserve" for Repairs.—No reserve for repairs should be created and no reserve account is ordinarily kept. If such a reserve appears to be necessary in a certain instance, it would be clear evidence that the replacement which the reserve was intended to care for had a significance beyond the single year and was therefore not a repair at all, but belonged to one of the other charges due to more permanent and fundamental deterioration of property. Even in cases where a considerable replacement must be made during the last month of the year, and both accountants and engineers are inclined to allow some of the expense to be carried over into the succeeding year, the policy is wrong. The probability is that heavy repair charges occur unevenly, so that the apparently extraordinary repairs are merely large portions of an average allowance.[b]

Furthermore, the necessity of defining some unit period requires that repairs be looked upon in their totality for the period rather than as individual charges. If the repairs are particularly heavy in the winter months and comparatively light in the summer months, it is not only justifiable but necessary that the total for the year be determined and the monthly average be considered as the proper repair charge for each month in case it is necessary to prorate repairs on a monthly basis. This may seem arbitrary, for there is no inherent necessity that the business of a twelvemonth should constitute a unit. It is arbitrary, but all measurements based on the passage of time are arbitrary, albeit necessary. So that once the unit of time is chosen, the accountant must regard it, from an accounting point of view, as homogeneous and inviolable.

---

[b] The net earnings of railroads during the months of April, May, and June are not accurate indices of actual conditions when the road closes its fiscal year on June 30. Less accurate are the charges to maintenance of equipment, and least accurate of all are the charges to maintenance of ways and structures during these months. If the earnings of the road have been running close to the fixed charges during the preceding ten months, the management will postpone many repairs to its freight cars until after the end of the fiscal year, and practically all the repairs to the roadbed and stations. By this evasion the entire maintenance expenses are reduced for the year and greater net earnings shown than exist. If, on the contrary, the road has been making larger earnings than it seems expedient to show, inordinate improvements, especially on the roadbed, are pressed into the late spring months, therefore increasing the total maintenance charges and decreasing the apparent net earnings. Evidence indicates that the Boston and Maine Railroad followed the former procedure during the months of April, May, and June, 1915, in order to swell its apparent earnings preparatory to a plan of financial reorganization; while the Chicago, Burlington and Quincy Railroad followed the latter procedure during the spring of 1914, in order to show lower net earnings, in view of certain wage and freight rate investigations.

This principle applies to the first year of the business when the repairs would ordinarily involve smaller costs, quite as much as to succeeding years when the repairs would be expected to amount to larger sums. It is wrong to contend that, when the plant and equipment are new and require practically no repairs, there should be set aside a reserve to take care of excessive repairs in later years. This view is based on the assumption that the aggregate amount of repairs should be approximately the same during successive years. This presumption is not implied in the idea of a repair, nor required to give uniformity to accounting practice. A repair is a charge against earnings for a given year. The year is a unit, independent of succeeding units, and it is neither logically justifiable nor expedient to require that the repair element of costs should be made, by artificial means, more uniform from year to year than the labor or the raw material element. And even if the principle that the costs of repairs should be uniform is strictly adhered to, it is by no means certain that the first year necessarily carries the lowest repair costs. New machinery may not operate as it should; much is experimental and must be changed at the very outset; adaptations to special cases are always necessary; many legitimate repairs, like the setting of new bushings and the replacement of defective castings, are quite as likely to occur during the first year as during any other.

Depreciation—The Theory.—Depreciation, as already stated, is an adjustment to the valuation of physical property in order to establish a new or revised valuation that recognizes the slow deterioration of physical property. As the property account is carried at some original valuation, or at cost, the fact that there is depreciation is acknowledged by establishing, over against the original valuation, a reserve account or a series of reserve accounts. This procedure is required because with much of the property used by a corporation annual repairs will not suffice to maintain full production value. On the one hand, its normal period of full usefulness is very great; on the other hand, no one part can be replaced without replacing the whole. A granite foundation begins to crumble the day it is set in place, but it is a century before the decay is noticeable and one might almost say five hundred years before its usefulness is seriously impaired. A brick building is less valuable after a year of service than when first erected, but if the proper annual repairs are made it will probably last a century. Every structure and machine has a life, even though it is constantly repaired. The foundations of a house cannot be replaced without tearing the structure to pieces, yet they slowly decay; the heavy castings of a locomotive slowly corrode, notwithstanding the frequency with which the locomotive goes to the repair shop.

It is illogical and misleading to charge the cost of the entire new machine or structure to the gross profits of the year in which it is finally cast aside, for its decay has been gradual during all the years since it was installed. Rather should each year bear its proportionate burden; and in order to charge the business of each year with this proportionate burden, not to be actually expended until years afterward, it is necessary to set aside a reserve out of apparent gross earnings or apparent surplus from year to year, in exact accordance with the imperceptible decay of the machine or structure. When the replacement finally becomes necessary, co-existent with this bookkeeping reserve there should exist somewhere in the assets of the business a realizable fund which will be on hand when the life of the physical property has ended which may be used to pay for its replacement.

Needless to say these reserves set aside each year must be made regularly and uninterruptedly, and, so far as human judgment permits, in exact proportion to the wearing and aging of the physical property. Under no condition should they be made to correspond to the relative prosperity of the business or the caprice of the directors. Under no conditions should the depreciation reserve be manipulated for speculative purposes,[c] or made so markedly irregular as to suggest that it was manipulated according to income or in order to avoid federal income taxes.

The distinction, in theory, between repairs and depreciation is arbitrary. It depends on the length of time chosen for the unit of business. If one month is selected only those replace-

---

[c] This was exactly what was done in the case of the American Can Company. The following table is significant:

Year	Net Earnings Before Depreciation	Depreciation	Bond Discount	Balance
1906	$2,534,367	$ 184,327	....	$2,350,040
1907	3,246,828	561,135	....	2,652,393
1908	3,111,898	405,634	....	2,706,264
1909	3,301,678	545,526	....	2,756,152
1910	3,456,537	633,565	....	2,822,972
1911	5,416,399	2,500,000	....	2,916,399
1912	7,522,932	983,886	....	6,539,046
1913	6,595,679	1,212,762	$1,050,000	4,332,917
1914	5,807,802	750,000	....	5,057,802

The most conspicuous variation was in the depreciation reserve for 1911. And this has a complete explanation. In 1911 the preferred stock had over 20 per cent accumulated dividends against it. During the year the common stock was quoted between 8⅞ and 12½—a mere speculation. The fact that the earnings were far and above any previous year was entirely and successfully obscured by making a secret depreciation charge over five times that of the average of the preceding five years and over four times that of the previous year. Consequently the net earnings after depreciation appeared about the same as the preceding years, and gave no intimation of increased value for the common stock. The "inner ring" of directors were therefore enabled to acquire large amounts of both common and preferred stocks.

During the year 1912, the large earnings of the American Can Company became matters of public knowledge and the depreciation reserve was dropped to less than a half of the preceding year. As a result the net earnings after depreciation appeared to be twice as great as before—a rise from less than $3,000,000 to over $6,500,000. As a result, too, the common stock rose from 11¼ to 47⅜, and the preferred stock from 90⅝ to 126¼.

ments which can be presumed to last for a month can be considered repairs, and all others must be replaced through reserve accounts and the corresponding funds created by monthly increments allotted out of gross earnings. If, at the other extreme, a period of ten years is chosen as the unit, the greater part of all the replacements would be classed as repairs, the charges to depreciation reserve being made only for structures having a life of more than a decade. But although the theoretical distinction between the two classes is based on an arbitrary unit of time, the practical distinction is of very great importance and under no conditions arbitrary. Once the fiscal period of the business has been selected, the accountant and the engineer, working together, have only to distinguish between replacements which have a period of usefulness less than or greater than the period chosen.

Whatever the judgment of the engineer and the accountant, and whatever the period used, the sum of the charges to repairs and to depreciation reserve will represent the sum necessary to preserve the original physical property of the business intact. So that at any time the unexpended depreciation reserve ought to represent the difference in physical condition—expressed in money—between the property owned by the corporation and new property identical with it. If the physical property of the corporation shows a distinct deterioration, not fully offset by the depreciation reserves, it is a clear sign that the accountants and engineers have ascribed a longer life to the property than is warranted by the facts, and on the basis of this faulty judgment have set aside inadequate reserves.

In this discussion it should be observed that the term "physical property" is used and not "economic value." In other words, depreciation merely as such concerns itself with the value of the property as an instrument of production in a system of competitive industry. Repairs and annual additions to depreciation reserve merely maintain the physical property at a constant wholeness. They do not maintain the economic value of the property. To do this requires an obsolescence reserve accumulated in the same way as the depreciation reserve. This is discussed in the later paragraphs of this chapter.

Furthermore it should be observed that a reserve for depreciation and the funds set aside for the subsequent replacement of physical property should stand for more than what is implied by a strict interpretation of the accounts. To the accountant the physical plant is carried at cost and the total depreciation reserves represent merely the deterioration that has probably occurred, on the assumption that when the depreciation reserves equal the original cost, new property of a like nature can be bought to replace it. This is obviously not always true, or rather is true only when the original cost of the property bears some approximate relation to the replacement cost. Although important to the accountant's mind the original cost has at most an historical interest except perhaps in the case of public utilities where original cost may be decisive in determining rates.

Depreciation Reserves Sometimes Unnecessary.—Certain kinds of property may be maintained at their full physical condition by means of a constant and uninterrupted series of repairs and replacements without any reserves for depreciation. Such property must meet the following conditions:

1. It must be easily divisible into small parts.
2. The parts must be uniform, that is, all of a kind.
3. The number of such parts must be very large in the aggregate amount.
4. The parts must be of such a nature that the repair or replacement of any one of the parts does not affect the usefulness or the life of the property as a whole.

In brief, the property must consist of many uniform distinguishable and physically separable units. The roadbed of a large railroad system alone of all the property likely to be owned by a corporation meets these conditions, although even then not perfectly. If we presume that the life of ties, taking a specific example, is seven years, and if the railroad corporation replaces one-seventh of the ties each year, that part of the roadbed represented by ties is fully maintained. And if the life of a steel rail, under a given set of conditions, is ten years and the railroad replaces one-tenth of its rails, each year, this item, too, is fully maintained. Repairs to the ballast and gravel bed itself are not so easily adjusted by this method and all the other expenses of maintenance of a railroad's way are kept up with difficulty except through depreciation reserves.

If the entire value of a roadbed consisted of ties and rails, which meet the conditions of being uniform separable units, it would be practically true that the railroad's way could be fully maintained without depreciation reserves, even though the life of the units far exceeded the period chosen by the railroad for its fiscal unit.[d] It may also be contended that freight cars and even locomotives meet the conditions, so that a railroad may fully maintain its movable equipment by annual replacements. This presumption would be valid if the quantity of the equipment were sufficient, so that the process of discarding and renewal would be regular and constant, at no step involving dislocation to any part of the railroad service. The writer would be inclined to admit the principle for small, standardized freight cars of large railway systems, but to deny the principle when applied to movable equipment in general. It is not conceivable that the number of locomotives, for illustration, could ever be so large that the coming and going of a single one would be of negligible importance to the system.[e]

---

[d] It has been contended, in opposition to the view expressed above, that, as no replacements would be necessary during the first year or immediately after the construction of the roadbed, a depreciation reserve must, of necessity, be set aside to care for the years when the ties and rails would become useless all at once, like the "one-hoss shay." This observation is undoubtedly valid, theoretically, but practically it has no significance, as railroad roadbeds usually "grow" in a very true sense. Laid at first with light rails and poor ties, they are gradually improved by the substitution of heavier material. But this substitution is gradual. All of the trunk lines in the country are in a state of equilibrium in which each year a proportionate number of ties and rails must be replaced. And, provided there were nothing else to be considered, the roadbed could be kept up indefinitely by making just these replacements.

[e] The Interstate Commerce Commission, in the original system of accounting, allowed the railroads of the country to use their individual discretion as to whether or not they should maintain depreciation reserves for

The principle ought not, in any manner, to be applied to a railway property as a whole.[f]

---

movable equipment. Some did; some did not—and strong and weak roads belonged to each group. Subsequently the Commission ordered that all railroads should keep depreciation reserves on the different classes of movable equipment, but did not prescribe the amounts. Variations are remarkable. The Rock Island, during the years of its greatest trial, set aside a reserve of approximately ¼ per cent on freight cars, based on the presumption that a freight car would live four hundred years! The depreciation reserve on freight cars of the Pere Marquette rose from $67,105 the year of the receivership, to $1,003,512 the year next after. Clearly, the mere fact that depreciation reserves are set aside for rolling stock is of merely theoretical significance. The practical question is: "What is the proper amount?" For brief discussion, see Book I, Chapter VII. The whole subject, so far as railroad accounting is concerned, narrows itself down to a distinction, in individual cases, between expenditures which are merely repairs—maintenance in the ordinary usage—and expenditures which are actual additions to property—improvements in the ordinary usage. The distinction between maintenance and improvements is the crux of all accounting systems for public utility corporations and the Interstate Commerce Commission in its successive "instruction" circulars covering the uniform system of accounts for interstate railroads has struggled manfully to establish certain lucid and logical grounds of distinction. The accountant, Stephen Little, who conducted the momentous investigations into the accounting systems of the Reading, Baltimore and Ohio, and Atchison systems prior to their reorganizations did much to establish railroad accounting on a firm basis. Later William Mahl, Comptroller of the Southern-Union Pacific Railroad system, devoted much attention to organizing railroad accounting along practical, logical lines. And as a whole, long before the Interstate Commerce Commission undertook to establish a uniform system of accounting, our American railroad accountants had developed a sound accounting policy which fitted well the peculiar problems of our own system of transportation. To the rigid insistence of the pioneers of railroad accounting that maintenance charges be liberal and that there must be a real addition to property before an expenditure shall be considered an improvement, is due the relatively low capitalization of our American railroads. For general discussion of this subject, see the numerous accounting series circulars published by the Interstate Commerce Commission from 1909 on, covering the prescribed system of uniform accounting. Note particularly the various bulletins in which specific practical questions are answered. (Accounting Bulletin No. 4, for example.)[1]

[f] In one notable instance this opposition of opinions concerning railway depreciation came clearly into view. The master who had been requested to report on questions of fact in the notable Minnesota Rate Cases found that of a railroad's property "everything on and above the roadbed depreciates from wear and weather stress. The life of a tie is from eight to ten years only. Structures become antiquated, inadequate, and more or less dilapidated. Ballast requires renewal, tools and machinery wear out, cars, locomotives, and equipment, as time goes on, are worn out or discarded for newer types." Nevertheless the master believed this depreciation to be fully offset

---

[1] For earlier discussions, see Greene, T. L., "Railway Accounting," 7 Pol. Sci. Quar. 598 (1892); Berg, W. G., "The Distinction Between Repairs and Improvements," 35 Ry. Age 578 (1903); "Depreciation in Railroad Accounting," 43 Ry. Age 728 (1907); Delano, F., "The Application of a Depreciation Charge in Railroad Accounting," 16 Jour. Pol. Econ. 585 (1908); Calvert, J. F., "Depreciation in Railway Accounting," 6 Jour. of Acc. 229 (1908); "The Necessity of Depreciation Reserves," 48 Ry. Age Gaz. 1297 (1910).

When writers seek to apply the principle that property not consisting of many uniform units can be fully maintained by annual repairs and replacements alone, they seek to set aside a fundamental characteristic of physical property on the one hand, and a basic principle of accountancy on the other. One of the most fallacious applications of the principle was offered some years ago, in connection with the property of a public utility corporation.[g] It was contended that after a given period,

---

by appreciation, saying that "the roadbed was constantly increasing in value . . . it becomes solidified, embankments and slopes or excavations became settled and stable and so the better able to resist the effects of rain and frost. . . . A large part of the depreciation is taken care of by constant repairs, renewals, additions and replacements, a sufficient sum being annually set aside and devoted to this purpose so that this, with the application of roadbed and adaptation to the needs of the country and the public served, together with working capital . . . fully offsets all depreciation and renders the physical properties of the road not less valuable. . . ."

The Supreme Court refused to accept this interpretation that maintenance and appreciation fully offset all depreciation. "It would seem," said Justice Hughes, "to be inevitable that in many parts of the plant there should be such depreciation . . . and when an estimate of value is made on the basis of reproduction new, the extent of existing depreciation should be shown and deducted."[2]

[g] Reference is here made to a pamphlet published by Allison, J. G., commissioner and chief engineer of the St. Louis Public Service Commission. Other writers have adopted a similar view and certain decisions of some of the public utility commissions have been vitiated by the same false accounting postulate.[3] These writers and commissions have been unwilling to allow a utility such a gross income as would permit of establishing a depreciation reserve. The doctrine has even worked into the views of the courts where the effort has been made to show that "appreciation" fully compensates depreciation. See preceding note.

An engineer writing in support of the necessity of a full and liberal depreciation reserve for traction companies remarked: "Since the renewals do not occur at the same time for all parts of a property, an electric railway after beginning operation is never equipped throughout with a new plant. Therefore there is a difference between the first cost of the depreciable plant and a depreciated value estimated for the same plant on the physical condition after years of use."[4]

The same engineer further says: "Where, either through want of foresight or lack of earning capacity of the property, those having in charge the well-being of an electric railroad have not seen to it that appropriate assets have been accumulated to care for the depreciation of the plant, it means that one of three conditions will arise when the time finally arrives when the replacements on account of depreciation *must* be made: Money must be borrowed, on the strength of the future earning capacity of as the various and multiform equipment of a traction or lighting company had begun to wear out, many repairs and replacements would be necessary. This is undeniably true. But further it was contended that, as the age of the plant increased, the ordinary repairs and replacements would gradually take the place of depreciation reserves, and finally such reserves could be dispensed with altogether. Without commenting on the psychological bias of public utility company operators when confronted with the advisability of replacing a complete alternating current unit by a new one and charging the expenses to the repairs of a single year, one has only to observe that the adherence to such an accounting principle would be disastrous for all concerned—the creditors of the business, the stockholders, and the public. The business itself would suffer through unequal fluctuations in net earnings because of necessarily unequal allowances for repairs. The stockholders would suffer because of the greater uncertainty of the costs of operation and therefore greater irregularity in dividend payments. The public would suffer from two results—the greater difficulty in securing capital for public utility enterprises, due to the greater fluctuations of their net earnings, and the poorer service owing to the probable unwillingness of managers to make costly replacements as early as high efficiency would require. In the end, a final reckoning comes, in which no one gains.

---

[2] Simpson v. Shepard, 230 U. S. 352. Besides the Supreme Court decision cited above see, Shepard v. Nor. Pac. Ry. 184 Fed. 765; 29 Pol. Sci. Quar. 57 (1914). Most of the Supreme Court decision reproduced in Ripley, W. Z., Railway Problems, 642 (1913).

[3] Geijsbeek, J. B., "Fair Return to Public Utilities," 57 Jour. Acc. 245 (Apr. 1914).

[4] Jackson, W. B., "The Depreciation Problem," 37 An. Am. Ac. Pol. Soc. Sci. 39 (Jan. 1911).

Obsolescence.—As suggested already, there is a vital difference between the maintenance of the physical condition of property and the maintenance of its full economic value. The

---

the road, to cover the cost of the replacements (such borrowings being gradually liquidated from the earnings of the road), while at the same time a keen eye is kept on the care of depreciation for the future; or the property may be forced into the hands of a receiver; or it may be possible to do what is indefensible under the conditions, float additional stock or bonds to take care of expenditure for renewals of plant that is already represented in capital. Failure to appreciate the inexorable law that apparatus must come to the end of its useful life has resulted in the financing of economically unsound electric railroad enterprises, and in the embarrassment of good enterprises through the distribution to the stockholders of funds that should have been held in reserve for deferred maintenance."

former implies that such replacements shall be made so that the property is at all times of equal physical wholeness to that originally installed, or, if of less wholeness, that there exist reserves which represent the cost of bringing the present condition up to the wholeness of the original. Such physical equivalence is based entirely on cost. If a building cost $100,000 and had a life of 50 years when kept in repair, and if the corporation showed a reserve of $20,000 at the end of ten years to compensate for the depreciation of the building, the corporation would meet the condition of maintaining the physical equivalent of the property. Many accountants, unfortunately, think that this is all that is required to maintain true values. But the building was originally built for no other purpose than assisting in the corporation's business. During the ten years since it was built, changes in methods of construction or of manufacturing technique may have rendered it useless for the original purpose. To consider its value as only $20,000 less than when erected is pure fiction. The sole value of the building was to assist in production, for which purpose it had an original value of $100,000; but after ten years it has merely a scrap value, because it no longer contributes to this end. Clearly it is this "value for the business," or "value as an agency of production," that gauges its true economic value. And it is this economic value which the figures of the accountant are supposed to reflect. Hence the mere physical property reserve of $20,000 should have been augmented during the ten years by additional reserves to maintain the property at its full economic value. Reserves for obsolescence may be presumed to accomplish this end.

The theory underlying this illustration is of great moment. The maintenance of the physical condition of the property is accomplished through direct expenditures for small repairs and regular contributions out of earnings to a reserve fund which cares for the replacement of property having a life beyond a year. Such maintenance of property does not in the least insure the continued earning capacity or economic value of the property. To accomplish this purpose an additional reserve must be created, which shall meet or help to meet the extraordinary replacements that may be necessary as machinery and equipment become out of date or are superseded by more efficient inventions. This is particularly true in manufacturing businesses of all kinds where competition is so keen that only by taking advantage of the most efficient machinery can the manufacturer hope to reduce his costs of production to such a level that he can do business at a profit. One of the commonest causes of failure among manufacturers is the reluctance to "scrap" machinery, still good of its kind, which has been superseded by better and faster models. A manufacturer may have set aside sufficient reserves to replace his old machinery when it is entirely worn out, but the fund corresponding to these reserves, which he has set aside out of earnings, is inadequate to meet the cost of new machinery where there is still some life left in the old. The appearance of a new competitor with thoroughly modern equipment makes certain the failure of the long-established manufacturer.

Property may become out of date from a variety of causes. The commonest is the invention of new machinery that can do the work better or cheaper. But there are other causes not thought of at first. A sudden change in style may make thousands of dollars' worth of the lasts of a shoemaker or the patterns of a dress goods manufacturer utterly worthless. A sudden change in the public's fancy may make useless great amounts of machinery devoted to a special purpose. A notable instance of this is the case of the old American Bicycle Company, the machinery of which became practically worthless as the public's plaything changed from the bicycle to the automobile.[5]

A change in relative labor costs may render large quantities of machinery obsolete. When the New England Cotton Yarn Company was organized, its spinning machinery consisted almost entirely of English mules, requiring skilled labor for their operation. Many of the mule spinners were Englishmen. The supply of this highly skilled labor decreased, whereas the demand for it increased. As a consequence, within a couple of years, the wages for mule spinners had risen so high, comparatively, that it was cheaper to spin coarse and medium yarns on ring frames, the operatives of which were paid the wages of unskilled labor. To meet this change of labor conditions the company was compelled, ultimately, to throw away thousands of dollars' worth of mules, having many years of usefulness remaining to them, and replace them by ring frames.

---

[5] For details see Dewing, A. S., Corporate Promotions and Reorganizations, Chap. X (1914).

Changes in social conditions may make it expedient to provide improved or altogether different surroundings for factories; social conditions may also require the substitution of improved public utilities; as a result the older, more obsolete facilities cease to have any value whatsoever. The ferry-boats plying between Manhattan and Brooklyn were once a public necessity and of great value. The bridges superseded the ferries and the boats had little more than scrap value.

All such contingencies as those mentioned are bound to affect, more or less, the value and the economic usefulness of old, thoroughly sound, but antiquated equipment. To replace obsolete machinery and equipment it is necessary to provide a fund that may be drawn upon when these replacements are expedient, and when the fund supposed to correspond to the depreciation reserve is not ample. This obsolescence reserve is therefore supplementary to the depreciation reserve. The fund to effect these premature replacements is brought into existence by deducting from the gross earnings an appropriate annual amount equivalent to the average annual rate at which machinery is superseded by newer forms.

Difficulty of Determining Amount of Obsolescence Reserve.—It is easy to perceive the theoretical necessity for an obsolescence reserve, but it is exceedingly difficult to determine, in practice, the appropriate annual amounts that must be set aside out of gross earnings. No one knows when a machine will become obsolete, nor the cost of the improved model which supersedes it. It is, as it seems, a guess based on a guess. And this is strictly true in a concrete case; but it is not true in the large average of cases. One must admit that it is obviously impossible to set aside a regular annual allowance so that when, at an unknown time in the future a machine of uncertain cost must be paid for, the fund will be just sufficient to meet it. But it is possible to set aside an annual allowance which will gradually create a fund from which may be drawn the extraordinary costs of replacing usable machinery by new and improved forms.

The amount of the annual allowance for obsolescence must depend on the nature of the business. Some parts of the plant will surely become obsolete before they are worn out; some parts will not. In a central station electric light system, it is almost certain that the generating units will be superseded by more efficient models before they are worn out; it is equally certain that the copper transmission wire will be quite as valuable for the purpose of the electric light company many years hence as it was when first installed. It may never become obsolete. Between these two extremes there is much of the equipment that will probably, but not certainly, be superseded before it is worn out, much that probably will be worn out before it becomes obsolete. The engineer is fully conscious of these probabilities. He may conclude, for illustration, that a third of the original cost of a normal central station electric system—representing such parts as wire and insulators—will not be superseded by improved forms. This part of the plant requires no obsolescence reserve. He may conclude that another third may be superseded, but that the extent cannot be predicted. Some slight obsolescence reserve is required for this third, in addition to the regular depreciation reserve. The property representing the remaining third will almost surely be superseded before it is worn out, but the time will be uncertain. A very substantial obsolescence reserve will be required for this portion of the corporation's property.

An Illustration.—The illustration may be made clearer by the use of a few figures. We will suppose that the entire central station electric light system cost, new, $300,000. For the convenience of this illustration we will assume—an assumption which would have to be specifically modified in practice—that all the parts of the system have a life of twenty-five years, and therefore are subject to a depreciation charge of 4 per cent of cost a year.[h] For a third of the property, representing $100,000, no obsolescence reserve is required. In the case of the second third, representing property costing $100,000, some obsolescence reserve is required. Let us assume that the engineer believes that this property, as a whole, should be replaced after nine-tenths of its life is gone. Consequently the equipment represented by this part of the plant must be replaced at the end of twenty-two and a half years instead of at the end of twenty-five years. At the end of twenty-two and a half years, however, the ordinary depreciation reserve, represented by a fund accumulated from the annual charges of 4 per cent or $4,000 a year, would amount to $90,000 only instead of the requisite $100,000. The deficit in the depreciation reserve fund, unless it is to remain a permanent deficit in the plant account, should have been offset by additional charges during the twenty-two and a half years. In other words, an obsolescence fund should have been accumulated during the usable life of the property. Or, to translate the case into figures, a reserve of one-tenth of the cost should have been set aside during twenty-two and a half years, $10,000 during twenty-two and a half years, or $444 a year. Similarly the engineer might infer that the remaining third of the property should be discarded, on an average, when about three-fifths of its normal, predictable life of twenty-five years had gone. Consequently this equipment must be replaced at the end of fifteen years, whereas the fund established to replace it at the end of its presumptive life would amount only to $60,000. The remaining $40,000 would have to come from another fund, set aside also out of earnings, accumulated during the fifteen rather than twenty-five years. This, in its turn, would amount to $2,667 a year. So that, in addition to the normal charge of $12,000 a year—4 per cent of cost to care for the replacement of the entire works at the end of a presumptive life of twenty-five years—there should be an additional charge of $3,111 to replace obsolete equipment.

---

[h] It will be observed that the simplest method of computing reserves is employed in this illustration. No effort is made to consider scrap value or interest on funds in the reserves.

It should be observed from this illustration that the reserve for obsolescence may represent a considerable amount, and would, if considered a part of depreciation, considerably augment the depreciation reserve based merely on the life of the equipment. It is just such cases as this, however, with corporations which operate in industries subject to rapid changes in technique, that illustrate the necessity of an adequate reserve for obsolescence.

Principle Underlying All Reserves.—There are no indisputable canons of accountancy requiring that just three adjustments must be made to revalue the physical property of the corporation properly before net earnings for a specific period can be properly valued.[1] The fundamental principle is that earnings cannot be considered as net earnings, as real earnings, until there is assurance that the economic value of the physical property of the business, as evidenced by power to earn, has not declined during the period in which the earnings are being made. Were it possible, as with a railroad roadway, to maintain the capital intact by regular and incessant replacements, then this problem would not be a problem for the accountant. The engineer would merely determine the maintenance expenditures and report the actual payments. But physical property cannot ordinarily be maintained in this manner. Some reserves must be set aside for the simple reason that the life and the usefulness of physical property neither corresponds with, nor is commensurable with, the fiscal year of the corporation. There is, therefore, the imperative necessity of having at all times an accurate method of determining its present valuation, after the actual expenditures for maintenance have been fully acknowledged. Depreciation and obsolescence reserves are the best means yet devised. Their pragmatic necessity is their justification; other reserves may be necessary in some cases, but these reserves are necessary in all cases when physical property is employed in the conduct of the business.

---

[1] One could not, with an understanding of its practical uses, allege that the science of accountancy is governed by a rigid system of principles and classifications, such as pertain to the physical sciences. Like all systems of formal logic, it is pragmatic. It is a normative and not a mathematical science. To meet the requirements of its conditions, that accounting principle is best which enables the accountant to record and the reader to interpret the true picture of the economic values of the business expressed in money values. The business itself is the reality—the accountant's statements are merely an imperfect projection of that reality. If one entry is so described that the accountant and the interpreter of his accounts are able to say of it "that is exact" and of another entry "that is an intelligent guess," the accounts go a long way toward being both clear and true. Clearness, in the sense of being susceptible to but one interpretation, and truth, in the sense of expressing a money value for an economic value that is exact within a predictable limit of error—these are the ideals of accountancy.

Some Objectionable Accounting Practices.—Certain objectionable practices have crept into the treatment of depreciation charges that call for condemnation whatever theory of accountancy one accepts. Foremost, because the least logical, is the practice of assuming that the payments to the sinking fund of a corporation's bonds will correspond with the depreciation and obsolescence reserves.

This was done, for example, by the American Hide and Leather Company. The indenture securing their old first mortgage bonds required that $150,000 par value of redeemed bonds and the interest on the bonds be set aside in the sinking fund. This total appropriation increased slightly from year to year, and in that way was preferable to the vast majority of sinking-fund-depreciation accounts which grow smaller as the debt grows less. No attempt was made, however, to correlate the sinking fund with depreciation, except the following statement in the annual report: "The charge to Profit and Loss Account in respect of the appropriation for Sinking Fund for the past year, together with interest on the Bonds in this Fund, has been $365,637.59 and, as usual, this, in conjunction with the outlay on Replacements and Repairs, is considered as taking the place of any specific provision for Depreciation." [6]

When this practice is followed there are seldom [j] any other allowances for the wasting and aging of physical property, so that the presumption must be made that the payment of a certain proportion of the outstanding bonds balances the losses in value of the physical property of the corporation not provided for directly through repairs. The decrease in bonded debt through the operation of the sinking fund means a decrease in outstanding liabilities, and the wasting and aging of the property, not compensated for by repairs, means a decrease in assets. Provided, therefore, the one were always equal to the other, there would be no objection to the practice. But the two are never equal.[k] They arise from absolutely different causes. The sinking fund is maintained to safeguard the market value of the bonds or facilitate refunding them. There is no conceivable connection between the amount demanded by the investment banker as an adequate sinking fund allowance and the rate at which the property of the corporation grows old and useless. In practice the sinking fund is a certain percentage of the bonds. Made universal, it would imply that the larger a corporation's debt, the more rapidly its property would decay and become out of date. This is nonsense. Furthermore, as the sinking fund increases, the debt gradually decreases in amount and

---

[j] The writer has examined many income accounts where this pernicious practice was followed and fails to find a single one where there are specific charges to income that would take care of what is called here obsolescence. Most of the reports did not even attempt to justify the practice by suggesting, as did the report of the American Hide and Leather Company, referred to above, that the sinking fund appropriations have a correspondence to adequate annual depreciation reserves. The statements examined covered manufacturing, public utility, and retail distributing businesses.

[k] As stated by an accountant: "The questions of sinking fund payments for the retirement of debt obligations and of provisions for depreciation have no more relation in principle one to the other than the payment of any other liability has to maintenance charges." [7]

---

[6] 1915 A. H. and L. Co. Rep.

[7] Ludlam, C. S., "Treatment of Sinking Funds," 17 Jour. of Acc. 175 (March, 1914).

with it the sum that must be paid into the fund each year. This implies that the wasting and aging of a corporation's property grow less as the corporation grows older—again nonsense.

2 Another objectionable practice in connection with depreciation is that of allowing new construction to offset the various charges which we have called here depreciation and obsolescence. The sinking fund payments are regular and certain and as such correspond to the regularity and certainty of the decay of physical property. But new construction has not even this advantage of being regular and certain. During periods of pronounced business activity there will be large amounts of construction, during periods of depression little or none. This will remain true notwithstanding the fact that construction is cheaper during periods of depression than during periods of business activity. From the corporation's point of view, it is very convenient to allow the charges to depreciation only during years of pronounced activity and large profit, but such a method gives a false picture of the business and is therefore wrong.

3 A third bad practice, tolerated quite extensively by public utility accountants, is based on the theory that depreciation can be cared for by setting aside a certain proportion of the gross earnings of the business.[1] Clearly the aging and wasting of a large proportion of the equipment of the business [m]

---

[1] For illustration, the Southern Illinois Light and Power Company is required by a provision in its mortgage indenture to expend annually 8 per cent of gross earnings on maintenance. The practice has been acknowledged by public utility commissions. In one notable case, that of the United Railroads of San Francisco, a state commission ordered "that for the present the company should maintain a depreciation reserve of not less than 8 per cent or more than 10 per cent of the gross revenues." [8]

[m] The mortgage of the Caribou Water, Light and Power Company requires that 15 per cent of its gross earnings be either used for maintenance or set aside for depreciation before net earnings can be acknowledged for the purpose of issuing additional bonds. Some such provision is of increasing frequency in the mortgages of public utility corporations. It has been contended that the wear and depreciation of steel rails depends solely on use. Granting this, which seems improbable, it is clear that the constantly

---

[8] Re Financial condition of the United Railroads of San Francisco, Railroad Commission of California, Case No. 610 (Decided May 17, 1915).

bears little relation to the amount of business done, and less to the amount of gross profits. Carried to the extreme it would mean that when the corporation earned no gross profits, its property would neither age nor wear out.

Clearly the difficulty with these various methods of meeting depreciation and obsolescence lies in the fact that some standard of computation is chosen which is independent of the value of the equipment that wastes and grows old. Hence all attempts to make one set of essentially independent values dependent on the other are wrong, and lead to inconsistencies and false accounting.

---

recurring need for substituting heavier for lighter rails has nothing to do with wear. It is indeed difficult to find any equipment which declines in economic value solely in proportion to the amount of use, so that its decline in value would be in any sense a function of use as reflected in the volume of gross earnings.

CHAPTER III

COMPUTATION OF THE SURPLUS

Definition of Term.—The term "surplus" is used in so many senses and with such variations of meaning that an exact definition applicable to all cases is impossible. In all probability, however, the variations of meaning narrow themselves down to two. There is the general usage in which "surplus" means merely a margin, or leftover, not required by the business. There is, also, the strict meaning of accountancy in which "surplus" represents the balancing adjustment of a difference between debit and credit values. In either case the surplus represents, if the accounts are those of a corporation, an accumulation of economic values in excess of the amount called for by the total outstanding par value of the capital stock. This accumulation of free property may have arisen from the aggregate of annual net profits not appropriated for other purposes, or it may have arisen from money paid into the corporation's treasury under special conditions.[1]

The ordinary presumption, without exhaustive analysis of the accounts, is that surplus has arisen through accumulations from year in to year out of the profits of the business not distributed in dividends or specifically reserved for other purposes. With this presumption in mind, the various appropriations made from the apparent gross earnings, in order to reach the amount to be added each year to surplus, have a direct bearing on the significance of the surplus account in guiding the policy of the business. This significance must, in its turn, depend on the kind of industry in which the business operates and the theory of business profits on which the system of accounts rests.

---

[1] There are a number of books treating of surplus from the accounting point of view. Pinkerton, P. W., Accounting for Surplus (1924); Bliss, J. H., Management Through Accounts, Chaps. XXVII and XXVIII (1924).

Surplus in Banking.—It is important to note that the word surplus carries with it quite different connotations as it is used in banking, in public utilities, and in industrial enterprises. The surplus of a bank is a fund remaining after all the various "charge offs" have been made. Reserves for depreciation of banking buildings, for decline in market value of bonds, for losses resulting from doubtful investments, for losses on loans, in fact for every conceivable purpose, have been set aside before the surplus is computed. It is, in a strict sense, a balance pure and simple, belonging to the stockholders of the bank and remaining in the business in order to give depositors a further assurance of the stockholders' confidence in the business. In the banking business it has a real significance beyond that of accounting. It is a supplementary reserve to protect the bank's depositors beyond the capital stock that may be required by law. It implies, therefore, a real fund remaining after every possible contingency of the banking business has been taken care of by appropriate means. In conjunction with the capital stock it gives accurately and concisely the net worth of the bank—its value aside from any vague, intangible elements of good-will. Banks and bank stocks are bought and sold on the assumption that the book value—the sum of capital stock, surplus, and undivided profits—represents accurately the value of the net tangible assets of the bank.

Surplus in Public Utility Accounting.—Very different, indeed, and in fact quite opposite, is the meaning of surplus in public utility accounting. Here it means next to nothing as an indication of the net worth of the business. For neither the stockholder nor the bondholder, the rate-payer or the commission, is at all concerned with what the accountant alleges to represent the balance, after capital stock, between the assets and liabilities. By arbitrary revaluation of the plant account, by manipulation of the reserve accounts, by specific charges against surplus or by similar devices the so-called surplus account may be manipulated without affecting seriously the statements of gross and net earnings. Even if these revaluations have been performed accurately, and if the surplus and capital stock does, after the analogy of the bank surplus, represent the net worth of the business, no one except the accountant places much significance upon the fact. It may have historical value, or even legal value as establishing, in law, a fund from which unearned dividends may be paid without involving the directors in legal difficulties, but as evidence of the actual worth of the public utility it is without significance. It is the manner in which the net earnings are computed that is of concern; and the final residuum that is ultimately recorded as surplus is of negligible importance as a guide in determining the corporation's financial policy. A certain water company, with a deficit quite as large as its capital stock, was sold recently for a considerable price. The current earnings were the sole criterion of value and the question whether the balance sheet indicated a bookkeeping surplus or a bookkeeping loss was not even considered by the purchasers.

From the point of view of public utility accounts, it is not the effect of the various valuation adjustments, such as depreciation, upon surplus that is of importance; it is rather their effect upon the earnings. A bank may be bought or sold with very little reference to its current earnings, but solely on the basis of its surplus; a railroad or electric company may be bought or sold with very little reference to its surplus, but solely on the basis of its earnings. This distinction is one reason why it is so important to read the balance sheet of a corporation in terms of the kind of industry in which it operates.

Surplus in Industrial Companies.—In the case of an industrial the surplus has more significance than in the case of a public utility corporation but less than in the case of a bank. Among industrials the surplus should represent the residue of unappropriated profit and loss remainders after the gross earnings have been charged with all the direct and indirect expenses of operation,[a] so that such a surplus is significant both as a balance of earnings from operation, and as a balance of values after the necessary revaluation adjustments have been made. Or, in other words, among industrials the surplus is both the balance of net profits left over after charging gross profits or gross earnings with all the various adjustments, and also a balance, which, with the capital stock, represents the net worth of the business.

Paid-in Surplus.—This discussion of the significance of the surplus in various kinds of businesses has been based on the assumption that, although capable of different interpretations, surplus always arises from the accumulation of annual profits. That is not necessarily so. There are a number of circumstances which may give rise to a corporation's surplus, and these should be carefully distinguished from the creation of surplus through the normal operation of the business.

The surplus is sometimes paid in directly by stockholders. This is done in the case of the organization or reorganization of banking, insurance, or investment companies. In order to give an immediate semblance of strength, a bank may be organized by stock subscription taken in excess of par. Thus, with a par value of $100 a share the stock is subscribed for at $120 a share, the additional $20 going directly into a "paid-in" surplus fund. From the very first, therefore, the statement of the bank would show a surplus. This is necessary because at least a moderate surplus must be shown on the balance sheet of a company soliciting a banking, insurance, or investment business in order to give an appearance of strength. In no other way and by no other means will its financial statements inspire the necessary confidence. The laws of many states also require banking companies to accumulate a surplus above liabilities, which shall not be used for the payment of dividends. By subscribing this surplus at the beginning, the stockholders may draw dividends on the capital stock after the first year of business. Furthermore, at a critical time in the history of a bank or insurance company the stockholders are frequently required to subscribe to the surplus in order to maintain the unquestioned credit of the company. In all such cases the surplus is regarded to all intents and purposes as a part of the capital stock. In no sense is it a reserve for dividends; and if, under extreme provocation, the directors consent to distribute a part of the paid-in surplus to stockholders, the report of their action does irreparable injury to the credit of the company.

---

[a] In actual practice the procedure is something as follows: Net sales, less net cost of raw materials, manufacturing labor and manufacturing overhead, give gross manufacturing earnings. The gross manufacturing earnings less selling expenses and general administration expenses gives net manufacturing earnings. The net manufacturing earnings less reserves for depreciation, reserves for bad debts, reserves for taxes, etc., plus non-operating income—such as return on investments gives net profits. This net profits figure represents the surplus for the year; and the accumulations of each surplus account, from year to year, give the general surplus. Needless to say, the various adjustments enumerated above may result in net losses instead of net profits; and, when applied to the accumulation of losses and profits may result in a deficit instead of a surplus. All this is on the assumption that the business has employed merely its own proprietorship capital, and has loaned no capital to other businesses. If interest is paid out for the use of other capital than that owned by the proprietor or stockholders, then the interest payments are to be deducted somewhere during this series of adjustments. If we are dealing with a manufacturing business the ordinary practice is to deduct interest as one of the steps in getting from net manufacturing earnings to net profits. More consonant, however, with the general theory of business profits, as recognized in the science of economics, is the practice in public utility accounting where gross profits are always the profits or earnings before interest charges, and net profits the remainder after deducting all charges for the use of capital.

A good illustration of the importance of a paid-in surplus reserve is afforded by the experience of a large insurance company directly after the San Francisco fire. The Hartford Fire Insurance Company had, at the time, a capital stock of $1,250,000 and an admitted surplus, above all liabilities including legal reserves for outstanding policies, of over $5,000,000. The stock with the par value of $100 was quoted at $1,200 a share. The company paid out over $7,000,000 to the San Francisco policyholders. The disbursement of this large sum, the largest ever paid by any American insurance company for a single conflagration, would have used up the surplus and seriously injured the general credit of the company. Only by maintaining this general credit untarnished could the company hope to maintain its business and recoup itself for the loss. Accordingly it sold 7,500 shares of new stock to its old stockholders for $500 a share, par value $100. This transaction increased its admitted capital stock by $750,000—from $1,250,000 to $2,000,000—and added $3,000,000 to the surplus.

Surplus from Sale of Stock at a Premium.—In a few special cases it has become the practice for the stockholders to purchase capital stock of the corporation at a premium—that is, at a price in excess of its par value. From the accounting point of view this excess represents a liability of the corporation to its stockholders and its existence results, consequently, in increasing the net accounting liabilities of the corporation. Such a premium can be specifically labelled premium on capital stock or it can be merged with the general surplus. At all events, whatever the specific practice followed the final result is an increase of net worth of the business belonging to the stockholders.

While the sale of stock at a premium thus creating a kind of paid-in surplus is common among banks, it is quite generally followed among two distinctly different classes of corporations. These are the Massachusetts lighting companies and the old-established insurance companies. There are special reasons which explain the accepted practice in each case.

Massachusetts Utilities and Stock Premium.—It has been very easy in the past for Massachusetts public utility corporations to obtain capital by the sale of stock to stockholders. Moreover, in the past, the Massachusetts stockholders, for whom the stock was non-taxable, have been satisfied with a relatively low yield on the current market price of their shares, although the actual dividends paid have been very liberal.[b] As

---

[b] Saunders[2] found that for ten of the large utilities the average dividend rate was in excess of 10 per cent in every year from 1910 to 1925 except one, 1920, when the rate was 9.8 per cent. This slight falling off was caused by the serious difficulties which utilities all over the country were then experiencing as the result of high commodity prices.

---

[2] Saunders, Philip, Jr., A Study of the Premium Paid in on Capital Stock in Thirty-Three Massachusetts Gas and Electric Companies and in Sixty-Two Insurance Companies, Harvard Graduate School of Business Administration (1926).

a result the quotations of the local utilities ranged well above the par value. Since 1868 stock dividends have been prohibited by law. From 1894 down to 1909 the price at which a public utility stock could be sold by the utility was fixed by the local Public Service Commission; and this predetermined price was usually near the market price. Consequently, the utility was able, through this combination of circumstances, to dispose of each succeeding issue of stock at a price well above the par value. A recent study [3] indicates that among 33 large public utility companies the aggregate paid-in premium from 1910 to 1925 averaged approximately one-half the actual admitted par value of the shares.[c]

In the case of certain unusual utilities the paid-in premium on capital stock account actually exceeded the paid-in capital. For example, in 1924 the Lynn Gas and Electric Company, of Lynn, Massachusetts, had a paid-in capital account of $2,031,250 and a premium on capital stock account of $2,103,481. Even the largest utility, the Boston Edison Electric Illuminating Company, has had for many years a paid-in premium account of more than one-half of its capital stock.[d]

---

[c] The result of the study by years shows the growth of the use of paid-in premium among the large Massachusetts utilities.

Year	Per Cent of Premium to Capital (33 large companies)	Year	Per Cent of Premium to Capital (33 large companies)
1901	4.4	1913	51.1
1902	11.8	1914	54.0
1903	16.1	1915	54.1
1904	23.8	1916	56.5
1905	40.0	1917	56.8
1906	40.5	1918	56.5
1907	42.0	1919	55.5
1908	41.7	1920	55.3
1909	43.5	1921	53.7
1910	46.5	1922	51.7
1911	47.7	1923	46.3
1912	48.4	1924	46.3
		1925	45.4

[d] The following figures for the Edison Electric Illuminating Company of Boston show the steady growth of the paid-in premium account.

Year	Capital Stock at Par	Paid-in Premium on Capital Stock
1902	$ 7,850,000	$ 1,660,000
1903	8,635,000	2,450,000
1904	10,444,000	4,261,000

---

[3] *Ibid.*

It is interesting to note that owing to the Massachusetts tax laws and the confidence of Massachusetts investors in their utilities the market prices of these shares have been, almost consistently, above the sum of the paid-in par value and the paid-in premium. Saunders[4] made an elaborate comparison of the market prices of 10 of the 33 utilities which have consistently sold stock at a premium. His investigation covered the whole period from 1901 down to 1924. The market price of the shares of 5 of these companies exceeded the par value and premium value continuously throughout the entire period. Of the other 5 the market price was below the par and premium only during the years immediately following the Great War, when all utilities, especially gas companies, were experiencing great difficulties.

Sale of Stock at Premium by Insurance Companies.—In addition to the Massachusetts utilities the continuous sale of stock at a premium is commonest among the insurance companies. Saunders[5] investigated over a period of twenty-five years the increases of share capital of 62 of our largest insurance companies. He found, in general, a steady increase in ratio between paid-in premium and the actual par value of the shares. Comparisons were difficult owing to the frequency with which insurance companies declared stock dividends. In 22 cases, in the period from 1885, it was obvious that some of the paid-in premium had been returned to the stockholders in the form of a specific stock dividend. The comparison is further complicated

---

1905	11,488,000	5,307,000
1907	11,488,000	5,307,000
1908	12,644,000	6,501,000
1909	12,644,000	6,501,000
1910	13,603,000	7,605,000
1911	15,543,000	9,840,000
1912	15,603,000	9,951,000
1913	15,603,000	9,951,000
1914	18,200,000	12,936,000
1915	20,472,000	15,553,000
1916	20,480,000	15,562,000
1917	22,518,000	17,906,000
1919	22,528,000	17,919,000
1922	27,034,000	19,293,000
1923	32,440,000	22,000,000
1924	38,928,000	24,615,000

---

[4] *Ibid.*

[5] *Op. cit.*

by the fact that insurance companies, unlike Massachusetts utilities, can issue stock dividends as frequently as the exigencies of their businesses and the condition of their balance sheets permit. In fact, over a period from the Civil War down to 1925 among the 62 of the large insurance companies studied by Saunders [6] no less than 80 stock dividends were declared.[e] Most of these were declared since 1910, although the Aetna Insurance Company of Hartford declared four stock dividends during the period from 1854 to 1864 and the Aetna Life Insurance Company declared a stock dividend as early as 1820.

Status of the Premium on Stock.—The exact status of this premium is very difficult to define. Clearly it is capital paid into the treasury of the company to be invested in the property assets of the company, yet it does not represent an acknowledged liability to stockholders or creditors. If there exists a stock discount or other adjusting account with a balance appearing as a bookkeeping or constructive asset, which is not being extinguished by annual appropriations, it is unquestionably wise to permit the premium on securities sold to cancel this fictitious asset. In the absence of any such account the premium received from the sale of securities must be carried as a bookkeeping liability of a distinctly anomalous nature. Clearly money paid in belongs to the stockholders themselves and arises merely through the accident that the par value of the stock is less than what the stockholders are willing to pay for it. No more than when paid in directly as surplus, can the stockholders ap-

---

[e] Saunders found the following results to exist in 1925 for the 62 of the large insurance companies studied.

1925

	Fire and Marine	Casualty	Total
Number of Companies	35	27	62
Total Capital Stock	$134,950,000	$88,275,000	$223,225,000
Premium	37,655,735	32,876,323	70,532,059
Per Cent Premium to Stock	27.95%	37.2%	31.6%
Total Number Increases Capital Stock	231	170	401
Total Increase Premium	67	77	144
Per Cent Premium Increases to Capital Stock Increases	29%	45.3%	35.9%

[6] *Op. cit.*

propriate it in the form of dividends, and even in an extreme case they have been refused permission by public authorities to call it a capital stock liability.[f] From all points of view the issue of stock at a premium, involving the continuation of the premium as a mere liability, is undesirable. It leads to controversy and, in the end, the premium may be merged with the regular surplus account and be used most unwisely for dividend disbursements under the misleading name of unappropriated surplus.[g]

Sale of Capital Assets Above Cost.—A third way in which surplus may arise is through the sale of property at a price above its cost or above the figure at which it is carried in the plant account. It is the recognized policy of corporation accounting to mark down the real estate or other tangible property if it shows a marked decrease in value, especially if this decrease is not fully compensated by depreciation or other charges. But it is not the custom, nor would it be expedient, to mark up the value of tangible property solely on the basis of a fictitious or doubtful rise in valuation. But when property is actually sold at an enhanced price, the difference between this amount and the amount at which it is carried will appear immediately as a realized asset. It must be balanced off by a corresponding liability. This will be of the nature of a surplus.

---

[f] The case in question was during the controversies prior to the reorganization of the Boston and Maine Railroad. The company carried, June 30, 1914, a liability entry of a little over $6,500,000, entitled "Premium on Common Stock Sold," representing an accumulation of the amounts which the common stockholders had paid into the company's treasury in excess of the par value of their shares. It was proposed that this amount be issued by the railroad as capital stock to those who might consent to make sacrifices in one or another of the proposed plans of reorganization. This was contrary to the letter of Massachusetts law and the plan was defeated.

[g] Closely connected with this form of surplus, but not of sufficient significance to warrant a separate heading, is the excess of assets arising from the purchase, by the company, of its own stock and particularly its bonds for less than par. Such a purchase cancels automatically a liability equal to the par value of the securities acquired, but involves a withdrawal or segregation of a less amount of assets. The assets are reduced by the cost of the securities, but the liabilities are decreased by the greater par value of the securities acquired. To establish a balance the liabilities are increased through a fictitious or bookkeeping entry on the liability side to be known as "Securities Purchase" account, or by a similarly confusing name. Such a liability must be regarded as a real surplus, although, like the previous forms discussed in the body of the text, it is not to be merged with the regular surplus and not to be appropriated for dividend disbursements.

There is an old canon of accounting, much revered by English accountants, that a profit and loss balance, to be available for dividends, must arise through the regular and orderly movement of the business. A surplus arising from profit realized on the sale of capital assets would not therefore be available for distribution to the stockholders. There are substantial reasons to support this policy, although their strength depends on how close is the connection between the sale of capital assets and the regular course of the business. If this connection is very close, as with a steel concern selling to the trade structural steel made for its own consumption, and if the sale of such capital assets is not an unusual incident to the course of the business, it is justifiable and expedient to bring such profit into the general profit and loss account for the year. The balance of this account is added to the general surplus account from which dividends are taken.

Ordinarily, however, when capital assets are sold at a profit the transactions are surrounded by unusual circumstances. Sometimes it is real estate that has enhanced in value; [h] sometimes it is unused building material that can be disposed of

---

[h] In a few noteworthy cases book values of real estate have been marked up to agree with ostensible increases in value. Sometimes, fortunately not often, this bookkeeping increase in assets has been offset by a corresponding increase in the represented surplus available for dividends, and dividends have been straightway declared out of it. Thus the old United States Realty and Construction Company, in the first nine months of its operation, showed an apparent profit—including even estimated profits on unfinished building contracts—of $930,000. It declared, however, $1,215,000 in dividends. To bridge the gap a surplus, created by marking up real estate by $487,625, was added to the net earnings. Soon thereafter the corporation had to be reorganized because of imminent failure.[7]

When the Westinghouse Electric and Manufacturing Company moved from its old location, certain Garrison Alley, Pittsburgh, real estate was sold at a profit of $84,205 above what it was then carried on the company's books in its capital account. Yet the company, in order to show its dividend disbursements fully earned, added this to the general surplus, distributing the greater part immediately in the form of dividends.[8]

---

[7] Dewing, A. S., Corporate Promotions and Reorganizations, 237 (1914).
[8] *Ibid.*

at a profit; sometimes, even, it is construction materials which are disposed of in order to obtain the advantage of a sudden and presumably temporary rise in market value. The Boston and Maine Railroad, at one time during its mismanagement, bought rails for replacements. A sudden rise in the price of steel rails led the management to sell these purchases. Quite generally, however, this surplus arises merely from the sale of miscellaneous capital assets at prices above that at which they are carried upon the books. This is quite usual—one might say of general occurrence—if a separate depreciation account is kept for each piece of physical equipment.[1] Nevertheless, whatever the accounting theory adopted, financial experience and general business expediency have shown that a surplus arising from the sale of capital assets cannot wisely be merged in the general corporate surplus from which dividends are taken.

Capital Surplus Account.—The proper method for the treatment of profits arising from the sale of capital assets is to create a separate account to which is given some fictitious but sufficiently inclusive name, such as "capital surplus." In this account should be entered all gains from the sale of capital assets or the accumulations from the general depreciation account arising from underestimation of the life of physical equipment.

On the other hand, the fact that capital assets may be sold at a profit carries as its correlative fact the presumption that other capital assets may be sold at a loss. The fact that the life of some equipment is underestimated suggests that the life of some other equipment may be overestimated. In such cases the deficits in either the special or the general depreciation accounts must be extinguished in some reasonable manner other than through deductions from the earnings of a particular year. This capital surplus account serves as the means of absorbing all these untoward and embarrassing, but nevertheless real deficits.

---

[1] In that case some pieces of equipment will surely outlast their estimated life. When they are finally sold the amount realized will represent a kind of fictitious profit, the original cost having been obliterated through annual depreciation charges. They have outlasted their theoretical life and the amount realized from their corpses will be surplus. And if no separate depreciation accounts for individual pieces of machinery are kept a widespread and long-continued underestimation of the life of equipment will result in the accumulation of a bookkeeping balance in the general depreciation account which the management may rightly call surplus, simply because their successive depreciation reserves deducted annually from the earnings have been excessive.

In brief, then, all bookkeeping or actual profits arising from the sale of capital assets should be held as a reserve to be used in extinguishing all extraordinary deficits attributable directly to losses in the capital accounts. Otherwise these losses must be carried forward as fictitious assets or else taken over into the regular surplus. The former method leads to misrepresentation and, in extreme cases, disaster; the latter method introduces confusion into the general surplus arising from the normal conduct of the business.[j]

---

[j] The misfortune resulting from not having a surplus reserve account to absorb extraordinary and unforeseen capital losses is illustrated by the experience of the New York, New Haven and Hartford Railroad in the year ending June 30, 1914, the year before the Great War, and so presenting no abnormal conditions.

PROFIT AND LOSS ACCOUNT

Credit		
Balance brought forward from June 30, 1913		$ 7,916,557.24
Credit balance of net income for the year		268,662.87
Balance in Insurance Funds transferred to this Account		1,983,354.67
Adjustment of securities to par value		123,720.53
Miscellaneous Items		25,863.55
		$10,318,158.86
Debit		
Dividend paid September 30, 1913	$2,356,768.50	
Loss resulting from the sale of securities of the Merchants & Miners Transportation Co.	3,594,500.00	
Unamortized loss on the New York, Westchester & Boston Ry. Co. bonds, which bonds were received in payment for advances to the New York, Westchester & Boston Ry. Co. and the bonds sold to the public by the New Haven Company prior to the past fiscal year	1,265,295.62	
Loss on Treasury securities sold or reduced to par	426,361.37	
Depreciation on equipment assigned to the Boston & Albany R. R. prior to July 1, 1913, under "Boston & Albany Equipment Trust of 1912"	237,108.36	
Depreciation prior to July 1, 1913, on equipment put out of service	130,070.61	
Franchise and other taxes at Grand Central Terminal prior to July 1, 1913	111,592.57	
Rental, Grand Central Palace, N. Y., for station facilities during construction of permanent station buildings, charges accruing prior to July 1, 1913, the amount not determined until recently	83,686.43	
50% of net charges to Profit and Loss made by the Boston & Albany R. R. assumed by the New Haven Company under agreement to share equally in the net results of the operation of the Boston & Albany, which agreement was cancelled as of January 31, 1914	71,749.81	
Miscellaneous charges	218,779.45	8,495,912.72
Balance June 30, 1914, as per balance sheet		$ 1,822,246.14

Surplus through Gift of Property.—A surplus very often arises through the gift of property to the corporation. The usual case of this character is the donation of a corporation's own stock to its treasury. If the donated stock is cancelled, the stock liability is decreased and the difference between liabilities and assets, represented by surplus, is increased.

Except among New England cotton mills, where instances of donated stock have occurred at times of threatened failure, the cases of surplus arising or augmented from donated stock are confined, for the most part, to the readjustment following the business reversion of 1920. Corporation managers, especially those who controlled the common stock of a corporation in which the public had a minority interest, sometimes felt a sense of responsibility for the interest of stockholders who had no voice in shaping policies which had ended in disaster. When, therefore, as a result of revaluation of the inventories it appeared that the accumulated surplus of many years had entirely disappeared and the adjusted balance sheet would show a deficit, the large managing stockholders donated to their corporation some of their stock holdings. As a result of such action the stock liability would be decreased and a balance of surplus would remain as the difference between the adjusted assets and adjusted liabilities.

Surplus Arising in Reorganization.—Another way in which a surplus may enter the books of account is through the readjustment or reorganization of a corporation's financial structure, or through the direct and explicit purchase of one

---

Putting this briefly, and in even figures, the New Haven Railroad started July 1, 1913, with a surplus of $8,000,000 accumulated from the previous annual profits of the railroad business. After allowing inadequate maintenance charges, and totally insufficient depreciation charges on its equipment (2 per cent, for example, on steam and electric locomotives—50 years of life), the year showed a profit of $270,000 out of direct corporate revenue of $74,000,000. By transferring certain funds and adjustments to the credit of profit and loss the company was able to show a bookkeeping surplus of $10,000,000. Out of this it paid $2,350,000 in dividends, approximately ten times the admitted legitimate earnings of the year, and charged off $6,000,000 of miscellaneous losses, mostly from operation covering capital losses. The capital losses of this one year extinguished the surplus accumulations of over forty years of business.

corporation's assets by another. In other words, a surplus sometimes arises through the accounting adjustments incident to the organization of a new corporation. Sometimes a new company takes over the going businesses of several smaller companies. For these smaller companies a smaller par value of stocks, bonds, and notes is paid than the actual amount of the assets acquired. The new corporation does not want to mark down these assets, especially if it conducts a public utility business, so that it must set up a fictitious bookkeeping liability which assumes the nature of a surplus. An instance of this character is illustrated by treatment of the surplus accounts of five small electric light companies of Texas at the time of their consolidation. These companies were bought at a low price. Preferred and common stocks of the new consolidated company were paid for them directly or else sold for money and the money paid over to the original owners. As a result of the transaction the new corporation found itself with property which had originally cost the previously existing utility companies considerably more than its own issues of stock. In order to justify the rates charged to the consumers of its electricity the new managers believed it inexpedient to mark down the physical property. Accordingly the accounts of the new corporation were opened with a surplus on its books, to offset the difference between the value of the physical property and the amount of its issued stocks. This was sound procedure, provided the origin of the surplus was clearly acknowledged and remembered. But the evil consequence, in this particular case, showed itself during the following two years of poor business, when the company paid preferred stock dividends out of this surplus. Ultimately the company failed.

A special and often perplexing treatment of the surplus account arises when a corporation organizes a subsidiary to take over the property that hitherto had not entered the books of account as assets or even as property values. This is true when a coal mine disposes of its waste "dust" theretofore considered of no value, or when a chemical industry organizes a subsidiary to use up, at a profit, some by-product theretofore regarded as valueless. An excellent illustration of this is an attempt made, several years ago, by the antecedent of the present Central Leather Company, to create a bookkeeping surplus out of the fictitious sale of capital assets to a subsidiary corporation created for the purpose. The old United States Leather Company acquired large tracts of timber land in 1893. Ten years later, 39 per cent in dividends having accumulated on $62,000,000 of preferred stock, the directors organized a subsidiary known as the Central Pennsylvania Lumber Company. The timber lands were revalued in accordance with the increased value of timber, as a result of which it was shown that the Lumber Company could acquire certain tracts of timber, including the bark rights, without depleting the original book value of the lands as carried in the capital account of the United States Leather Company. At the same time the United States Leather Company would acquire $10,000,000 of the Lumber Company's bonds in payment for the timber taken over by it. If this transaction could be consummated this sum would suddenly come into the Leather Company's treasury—out of a clear sky, as it were. It was the Leather Company's intention to regard this $10,000,000 of bonds as a free asset, and distribute them in lieu of its accumulated dividends. Such an asset would have to be represented in the liability side of the balance sheet as surplus, or by a word of similar connotation.[9]

Still again the surplus account has been, in certain notorious cases, manipulated up and down by the arbitrary increase or decrease of the capital stock. Needless to remark, the decrease of capital stock, and the coincident increase of surplus out of which dividends are declared, constitute actually an indefensible accounting misrepresentation entered on the books in order to obscure the payment of dividends out of capital.[k]

---

[k] This is exactly what was done in the notorious United Railroads of San Francisco case. The following is from the California Commission's report of the proceeding:

---

[9] For details, see Dewing, A. S., "The Reorganization of the United States Leather Company," 26 Quart. Jour. Econ. 68 (Nov., 1911); reprinted Ripley, W. Z., Trusts, Pools and Corporations, Chap. XI.

Surplus and Dividend Policy.—There remains, then, of the various sources of surplus, one and only one which may give rise to that surplus from which dividends should be disbursed. This is the surplus arising from the normal annual accumulations from the profit and loss accounts. It is the surplus coming directly from the profits of the business. The question of financial policy in connection with this surplus is the one of dividend expediency—the proportion of surplus that must be retained in the business as special or undefined reserves and the proportion that may wisely be distributed to the stockholders. This vital and far-reaching problem of expediency is discussed in the succeeding chapters.

A few things should be observed in passing, however, in regard to the actual treatment of the property coming into the possession of the company and called surplus. If the surplus arises through payments by security holders or through the

---

"While the books of United Railroads of San Francisco showing the actual entries as authorized by the board of directors are not available, the evidence clearly shows that the profit and loss account was credited with $1,200,000 because of the reduction of the capital stock, and was further credited from time to time with amounts in the sinking fund reserves. The resident partner of the firm which audits the books of United Railroads of San Francisco, defended the action of the company on the ground that the surplus or profit and loss account was a mere clearing account. If this theory were carried to its logical conclusion, there would be nothing to prevent the board of directors from increasing or decreasing the capital stock of a corporation, and thereupon charging or crediting the amount to profit and loss, and thus there could be created a surplus or deficit at will.

"To quote from the evidence:

> Question by Commission: Do you know that this $1,200,000 that you transferred into surplus under your authority was used to pay dividends?
>
> Answer by Accountant: No, sir, it was not.
>
> Q. How could you have paid dividends if you hadn't had this $1,200,000 in the surplus account?
>
> A. Well, as a matter of fact, there might have been a deficit—indeed, there was a deficit caused by our making this entry; it was necessary in order to get that deficit that something be done, and this stock was reduced.
>
> Q. Did you declare dividends—could you without the $1,200,000 being put into surplus have declared dividends?
>
> A. Why, certainly not.
>
> Q. Then you did pay dividends out of it?
>
> A. No.

"It is clear, of course, if the $1,200 000 had not been put into surplus account, the company, on its own showing would have had a deficit." Rep. Railroad Commission California Decision No. 2397 (Decided May 17, 1917).

profitable sale of capital assets it comes into the treasury as money. As such it is without earning power and should be immediately invested. Likewise if the surplus arises through mere bookkeeping balances, it stands merely for an increase in the unappropriated property of the corporation. If the corporation is a railroad the surplus stands merely for more cars or more finished roadbed than is warranted by the apparent claims of stock- and bondholders; if the corporation is a soap factory it stands merely for more soap or more grease than the liabilities of the company call for. In no case is it in a form that can be distributed in dividends or even used to meet a sudden and unpredictable demand for money.

The fact remains, therefore, that the surplus of a corporation is kept entirely in the form of actual money only in extreme cases.[1] The proportion that should remain in bank deposits and readily realizable cash items will depend on the nature of the business and the frequency or nearness of sudden cash demands. The surplus of certain corporations, notably insurance companies, is of the nature of a trust fund which must be kept inviolable to meet unforeseen demands. Preparation to meet unexpected losses is the very nature of the insurance business. Under most circumstances the ordinary receipts take care of the ordinary disbursements, but at the time of a conflagration the surplus must be encroached upon, since the customary reserves are insufficient. That is the reason why an insurance company should, irrespective of its theories of investment, keep a large part of its surplus invested in short-time loans or listed securities easily liquidated. Other corporations, notably railroads, need not have a single cent of their surplus in cash or easily realizable securities. There are no sudden contingencies which belong to the nature of the business, no sudden liabilities which can be liquidated only by money. And although, in the long run, the insurance business is no more hazardous than the railroad, the former is forced by its peculiar nature to regulate the investment of its surplus as if the unexpected were the expected.

---

[1] During September, 1917, a corporation engaged in the grinding of corn found itself unable to secure enough raw material to maintain its grind. The factories were closed for two weeks. On October 1, 1917, the trial balance showed an enormous accumulation of cash, so large in fact as to approximately equal a bookkeeping surplus that had taken years to build up. By November 1 the cash had been reduced by grain purchases and other disbursements to normal amounts. When the company's bookkeeping surplus was represented by actual money, the company was in no stronger position than when its surplus was tied up in raw materials and semi-finished goods. In fact, its position was not so strong, because the heavy accumulations of bank deposits indicated a paralysis of the normal business operations of the company.

The great majority of businesses, such as all industrials, public utility enterprises, even most banks, should invest the surplus where the return is largest. This is in the business itself. The stockholders presume, and this presumption should be true if the business is successful, that the officials can invest the surplus in their own business better than in another of which they know next to nothing. They cannot take the surplus and invest it in open-market securities, for the reason that being engaged in a business requiring in itself careful attention to details, a close, careful attention to the stock market is the last thing that should be demanded of them. And, if led by a foolish and childish conservatism they invest their surplus in high-grade securities, such as municipal and government bonds, they are taking a lower rate of return than the money invested in their own business ought to bring; if this be not so, the business should be liquidated and the services of the officers dispensed with.

CHAPTER IV

THE COST OF BORROWED CAPITAL

Gross and Net Profits.—According to the notation heretofore used, gross profits represent the mere difference between the total receipts for the goods sold or services rendered and the total expenditures involved in the production and sale of the goods or services. Net profits represent the gross profits of the business after there have been made deductions for repairs and such deterioration of equipment and intangible property as is due to use and age and the losses incident to the administration of the business. So described, net profit is the surplus left after the direct outlays have been paid and the capital brought up to the same point of value as it was at the beginning. It does not take into consideration the amount of capital involved; nor does it distinguish between the capital owned by the proprietors of the business and that borrowed from outside sources.

To reduce net profits to an amount which the directors may use in estimating earnings available for special and general reserves and for distribution among the stockholders as dividends, a further adjustment is required that shall involve the apportionment of the net profits between the actual proprietors of the business and those who have lent capital. The business must earn enough net profits to pay its interest charges before there shall be any remainder to set aside for a special purpose or to put back into the business or to distribute to the stockholders. Interest on borrowed capital is therefore the first charge against net profits.

The question may easily arise regarding the wisdom or authority of employing the terms "net" and "gross profits" in exactly the sense that has been done here. Profits are considered net before interest is deducted for these reasons: (1) The relative amount of owned and borrowed capital depends merely on the amount of their own capital proprietors of a particular business care to or are able to invest in the business. It has, therefore, no relation to the business as such. (2) It makes possible the comparison of the earnings of different businesses in the same or different lines of enterprise, without intricate adjustments for different interest rates and without having the conclusions affected by the question of whether or not interest is a part of cost. (3) The usage is in conformity with the practice of accounting among public utility corporations, which now constitute a very large share of the corporations whose affairs are matters of public moment. These public utility corporations are of increasing importance and—including railroads—are of greater significance as media of public investments than manufacturing or distributing corporations. The accounting theory, moreover, underlying the administration of public utility accounts is, it may be suggested, more highly developed and more nearly standardized than that underlying the accounting practice of mercantile corporations. (4) The use is strictly logical. And this logical form makes it possible to distinguish between profits and interest, recognized by all students of political economy.[a] Moreover, the use of net profits, recognized here, is in accord with a similar usage recognized by the United States Supreme Court in connection with railway earnings many years ago. "Net earnings are properly the gross receipts less the expenses of operating the road to earn such receipts. Interest on debts is paid out of what thus remains—that is, out of net earnings. Many other liabilities are paid out of net earnings."[1]

---

[a] The correspondence between the use of such terms as "rent," "interest," and "profits," in strict economic theory, in practical business, and in what may be called a scientific interpretation of corporation accounts, is by no means clear. Historically both economic theory and scientific accountancy borrowed their terms from the sphere of practical business. Each sought to develop a logically consistent set of terms, approximating, but by no means agreeing, with the usages of daily business intercourse. Confusion resulted, made even worse as each theoretical economist and each accountant, who has concerned himself with the foundations of his science, has sought to clarify his terms by introducing new shades of meaning.

---

[1] St. John v. Erie Ry., 10 Blatch. 279; 22 Wall. 136 (1874).

Classification of Payments for Borrowed Capital—Cash Discount.—Payments for borrowed capital usually enter into the business in five different ways. There are discounts given and taken on merchandise sold and bought, for the payment of cash before the bill is actually due. There are interest charges paid to the banks in the form either of interest or of bank discount. There are interest charges paid to the public in the form of bond and note interest. There are direct charges against profits arising from the use of other people's property, tangible and intangible, which take the form of rentals and royalties. Lastly there are interest charges indirectly paid by selling bonds at less than their par value, a procedure which requires throughout the life of the bond an annual charge to bond discount. These five forms of payment will be discussed separately. The bond discount account is really credited to reduce it. It is Interest Payable that is charged. Individually and collectively they represent those deductions from business net profits which must be made in order to obtain a stockholders' surplus, which shall represent the balance remaining to the proprietary owners of the business for which there are no direct outside claims.

If the cash discounts given and taken exactly balance, it will indicate that no adjustments to net profits are necessary, because the corporation is lending its capital to its customers or borrowing capital from its creditors. In case cash discounts are taken by the corporation in an amount in excess of those taken by its customers, there must be an adjustment to show that the corporation earned something by financing the merchandise stocks of its customers. This amount should be shown clearly as an addition to net profits and not as a part of net profits, because the amount represents a kind of banking profit, inherently different in character from the profit obtained through the ordinary conduct of the business. Similarly, if the discounts taken are less than those given, the difference should be shown as a deduction from net profits to indicate that some of the apparent net profit was made by using the capital of the corporation's creditors. The important point to be noted is that the discount adjustment in the general income statement should be made after the net profit has been computed. Any other method, especially that of regarding discounts as a part of either sales or purchases, leads to confusion in computing the total cost of the capital employed by the business.

Bank Discount and Bond and Note Interest.—Bank discount as interest paid for the carrying of merchandise loans is more clearly defined. Like cash discount, it should represent an adjustment to the net profits. Ordinarily it is a deduction, as the company has, presumably, borrowed from its banks. But it sometimes happens that the corporation has been amply provided by its stockholders with capital, so that it may receive interest from its bank deposits. Clearly this would be an addition to net profits, and should be shown as a banking profit, and not as a profit from the ordinary conduct of the business.

It is equally clear that interest paid on the public debt of the company should be a direct charge against net profits and not a mere incidental deduction from the gross profits as it has sometimes been regarded. Similarly if the corporation has, like the American Sugar Refining Company before the Great War or the old express companies, made large loans to other companies, the interest on these is an addition to the net profits of the business. This is true, even when the interest is received from another corporation engaged in a similar line of business, as dividends received by one railroad on the railroad stocks held in its treasury. There is difficulty, sometimes, in distinguishing between income from subsidiary companies, which may rightly be incorporated in a general summary of gross and net profits, and the dividends received from other corporations partly or wholly under the control of the large corporation. The distinguishing test, which should indicate whether or not the dividends or profits of a subsidiary or allied company are to be regarded as parts of the net profits of the parent's business or additions to the net profit, is the amount of control exercised over the subsidiary and the closeness with which the two businesses are connected.[b] If the parent company has absolute control over the subsidiary, whose separate existence is a mere legal fiction—the same officers, the same plant, the same books in fact—then it is perfectly proper to amalgamate the two systems of accounts and deal with the total net profit or loss as one item.[c] Thus it would be wrong for the United States

---

[b] This statement is strictly true whether the subsidiary is merely another corporation of the same kind doing the same business, or a corporation of a different kind whose business is secondary to and contributory to that of the main corporation. In the former case the separation may be for merely legal reasons. Thus the laws of Texas require a railroad operating in that state to be incorporated there. It is therefore strictly correct to consolidate the accounts of the main road and the subsidiary, since the two constitute, for all purposes of financial analysis, one and the same corporation. In the latter case, when the subsidiary is only a subordinate of the main company, it keeps a separate set of books, merely because the businesses are different. During the summer and autumn of 1917 many public utility companies especially in the Middle West (notably the Detroit Edison Company) purchased coal mines in order to insure themselves against a threatened coal famine. Thereafter the apparent earnings of the public utility could be manipulated at will, by shifting the prices and conditions of purchase under which the mining subsidiary billed its coal to the parent public utility. Obviously the only fair way would be to consolidate the profit and loss accounts of the two. Perhaps the mine, in addition to supplying the parent with coal, also sold coal on the open market. In this case an entirely separate and distinct profit and loss account must be kept for the mine (provided the price charged to the parent was the same as that charged to the outside customer), because then the mine was standing on its own feet, as an independent concern, and its success or failure should be evidenced by its own accounts.

The important question is this—does the subsidiary stand alone, as an independent business? If it does, the profit of the subsidiary should enter the profit and loss account of the parent as a receipt for loaned capital, that is, as a direct and clearly labeled addition or subtraction from the net profits of the main business. If the subsidiary is not independent, then the profit and loss accounts should be merged. In this case a loss suffered by the independent subsidiary must be regarded as a charge against the subsidiary's own surplus, or, if this is inadequate, against the investment account of the parent.

[c] The most exhaustive and elaborate system of accounts that attempts to separate the sources of income in accordance with this principle of the closeness of control and interdependence of corporations is that of the Union Pacific, about 1909. The Union Pacific Railroad derived its profit from six types of companies (besides its own railroad running from Omaha to Ogden), whose financial accounts and operating conditions were in various degrees of closeness to the parent company.

1. Accounts consolidated, so that there is a single profit and loss account; assets and liabilities consolidated so that there is a single consolidated balance sheet.
   (a) Fundamental parent: Union Pacific Railroad. Council Bluffs, Iowa (Omaha) to Ogden 1,101 miles, together with the

Steel Corporation to pretend that its ore-carrying and smelting companies are other than mere subsidiaries of its main organization, or that their profits are additions to its own profits. On the contrary, it would be equally wrong for the American Express Company, the second largest stockholder in the New York, New Haven and Hartford Railroad, to pretend that the railroad's profits, if such there are, should be regarded as a part of the net profits of the express business.

Rentals for Leased Tangible Property.—Payments for discounts, bank and bond interest, are payments for the use of that form of capital which is represented by money. But in addition to using money of others a corporation may use specific forms of property or rights to property, or may, in its turn, allow others to use property of its own. Money is paid, ordi-

---

branches operated as a single operating unit, 3,390 miles. This is the fundamental operating and financial nucleus.

- (b) Auxiliary companies:
    - (1) Oregon Short Line Railroad. Ogden to Huntington, Ore., with branches, 1,178 miles.
    - (2) Oregon Railroad and Navigation Company. Huntington, Ore., to Portland, with branches, 1,143 miles. Two large railroad systems the stock of which is entirely (except a few shares) owned by the Union Pacific Railroad. Operated, from the point of view of the company, separately, but the operations consolidated with those of the parent before presenting to public.
- (c) Proprietary companies. Utah and Northern Railway, Columbia River and Oregon Central, etc. In all, 17 small corporate entities, parts of the Union Pacific Railroad or its two auxiliaries, the corporate independence of which is retained for legal or other reasons.

2. Accounts independent. Income comes into the treasury of the Union Pacific Railroad as interest on invested capital.
    - (a) Investments, entirely controlled and owned: Oregon and Washington Railroad, Central Idaho Railway, Union Pacific Coal, and a variety of small corporations.
    - (b) Investments, entirely controlled, but only partially owned: St. Joseph and Grand Island Railroad, Southern Pacific Company, and other smaller corporations.
    - (c) Investments, partly controlled and partly owned: Chicago and Alton Railway, Kansas City Terminal, Illinois Central.
    - (d) Investments, over which the parent has little control and owns only a small part of the outstanding securities—investments, strictly speaking, although in many cases the parent profits by close traffic agreements: Atchison, Topeka and Santa Fé; Baltimore and Ohio; Chicago and Northwestern; Chicago, Milwaukee and St. Paul; New York Central and Hudson River Railroad. 1910 U. P. R.R. Rep. 26, 31-34.

narily, for this leased property. It is either in the tangible form of real estate, leased machinery, rolling stock, or even whole railroads, or else in the form of rights to the use of property, such as rights of way over land, the use of a side-track, the exercise of franchise privileges, or the rights to manufacture goods under established patents.

It is clear that in the vast majority of cases, rentals for the use of tangible property are in all respects identical with interest payments except in the control or administration of the hired property. A corporation may either buy a piece of land giving in payment borrowed money for which thereafter it must pay interest, or else it may lease the same land for a term of years for which thereafter it must pay rental. From the point of view of the corporation's general income account, choice between paying interest or rental is merely a question of business expediency. Similarly, with certain forms of a railroad's rolling stock, the question whether the equipment is bought outright or merely hired resolves itself into a question of the cost of hiring money or paying daily car rentals—a problem primarily of the money market.

When a corporation hires a large piece of property it is sometimes arranged that rental be paid during a period of months or years, but the corporation retains the privilege of buying the property outright at a prearranged price. This is done so that the leasing corporation may have an opportunity, by their own management, of testing the value of the property.

After the last reorganization of the International Cotton Mills Corporation, the new management decided that the heavy debt on the old Mt. Vernon-Woodberry group of mills made it inexpedient to assume the ownership of these mills directly. Accordingly they leased them until such time as they could ascertain whether or not they had an earning capacity commensurate with the lien of their own mortgage debt. Early experience showed that the group of mills had little independent earning capacity and the Mt. Vernon-Woodberry bondholders took over their mills and operated them separately from those owned directly by the International Corporation. When the property leased is of large value and its earning power subject to abrupt and unpredictable fluctuations, the rentals are sometimes arranged on the basis of the independent earning power of the leased property. Especially is this practice common if, as in the case of railroads, a separate and independent record may be kept of the amount of business which the leased line brings to the main road, or of the earnings arising from the operation of the leased line alone. These leases, the rental of which varies with the earning power of the leased property, were very common during the course of early railroad consolidation—in the evolution of the Pennsylvania Railroad system, for example—but they are now less common. Only recently, however, the Grand Trunk Railway, which owns a majority of the stock of the Vermont Central Railway, guaranteed the interest on the old 4 per cent bonds of the latter road only up to 30 per cent of the total amount of the receipts from traffic interchanged between the two roads.

A closely connected and very perplexing question often arises when a corporation organizes or acquires a subsidiary and, to secure sufficient money for the latter, utilizes its own credit by guaranteeing the interest on the securities of the subsidiary, and at the same time leases the property of the subsidiary. If the subsidiary fails to earn sufficient to meet its own charges, the parent must meet the deficit either by direct payment or in the form of payment of unearned rentals. Ordinarily, corporation accountants are inclined to charge this deficit directly to the general surplus—as they would an unpredictable or unusual loss. But there may be a deeper question involved. The subsidiary is sometimes bought or built for a strategic purpose, often far more significant than the hope of profit from its earnings; the Western Pacific was built by the Denver and Rio Grande for the primary purpose of giving the Gould lines a terminal on the Pacific, for example. The existence of the subsidiary is a mere legal subterfuge, the truth of the matter being that the parent found it expedient or simpler to get capital by this means. The deficit of the subsidiary is not a loss in the strict sense, but a difference between the actual earning power of the capital invested in the subsidiary's property and the cost of that capital as determined by the market price of money and the credit of the parent company judged in terms of its guarantee. In other words, the deficit of the subsidiary is really a cost of capital, and therefore a kind of rental charge. At what point this loss must be deducted from the general profit and loss account of the parent must be determined by the circumstances of the relations between the two corporations, but ordinarily it must be looked upon as a "cost of capital" charge analogous to a rental.

Rentals in Royalties for Intangible Property.—Rentals paid for the use of property rights are in some respects different from those paid for the use of tangible property. These rental costs will vary greatly according to the nature of the business. In manufacturing businesses sometimes royalties cover water rights, power sites, or easements, but more frequently they represent royalties for the use of patents.[d] Frequently a company is organized whose only asset is the ownership of a patent and its only receipts the royalties paid by one or more companies manufacturing under the license of this patent. Some of the subsidiaries of the United Shoe Machinery Company are of this description. In the case of public utility companies these payments are for the use of other companies' rights of way and easements, for rights under "break down" contracts, and, in some cases, rights under previously granted franchises.

A rental representing both payment for the use of property and property rights together is that exacted for licensed machinery.[e] The rental of the machinery is far greater than could be exacted on the basis of a fair return on the actual cost of manufacture, the greater part being represented by a return on the patent rights. The rental value of such exclusive patented machinery is determined not by the cost of producing the machinery itself, but by the economy to the users.[f] And conversely, if the corporation receives an amount for the use of its patents or other exclusive privileges, such receipts should enter the accounts as additional receipts, supplemental to the regular income and expenditure of the business. The question might arise as to the treatment of receipts from the use of patented or licensed machinery or other property rights. Obviously, as in a case like the United Shoe Machinery Company, where the chief, perhaps the only major, income is from such licenses, there is no question of the place at which such receipts enter the profit and loss account, as they contribute about all the receipts there are. The whole organization represents a kind of renting business. But in other instances in which such receipts are merely incidental to the main business, it is clear that they should enter the profit and loss account in conjunction with other income received from the use of the business's capital by others. Thus, the International Harvester Company permits its competitors to manufacture certain patented machines under licenses. This is a considerable source of income, but it is incidental to the main business of manufacturing and selling machinery on its own account. Such receipts should, therefore, be brought into the accounts as a part of the total receipts from loaned capital.

---

[d] One of the most notable contracts involving payment of rentals for patent rights (royalties) was that of the General Electric and Westinghouse Electric and Manufacturing companies for the joint use of the patents of the two companies.

From what has been said it seems clear that the various costs incident to the use of the capital of others in a business should be considered together as deductions from net profits and should not be treated as expenses of the business. From every point of view except the method of payment, cash discounts, bank interest, interest on funded debt, and rentals, are the same. All should, therefore, be regarded as the cost of using other's capital, not the cost of operating the business. Similarly, from the other side, receipts from cash discounts, interest allowed by the bank, and dividends and interest received from securities, should be regarded as an addition to, and not as a part of, the net profits of the business.

---

[e] The use of the term "royalty" in connection with the payment for minerals extracted by mining companies is objectionable, causing a confusion of meaning with the term as used for payments under patent licenses. The mineral royalty represents the sale of tangible physical property, whereas the patent royalty is the rental for the use of a property right.

[f] From the point of view of economic theory such royalties are of the nature of true economic rent—a scarcity rather than a cost value.

The cost of capital is frequently paid indirectly through the sale of securities at a discount.[2] This discount has the same effect as an interest charge, although the bookkeeping treatment is entirely different. Bonds are sold at a discount or at a premium and this discount or premium must be written off, or distributed, throughout the years during which the bonds will remain outstanding. The problem is, in fact, a problem of the interpretation of what is implied by selling securities at a premium or a discount.[g]

Bond Discount and Premium.—Clearly an investor places a value on a corporation's bonds determined first by the demand and supply of capital as evidenced by the prevailing rates of return on fixed interest-bearing securities, and secondly by the risk or chance of loss which he believes is involved in the ownership of the particular bonds. If so inclined, any corporation

---

[g] The pernicious practice has been advocated by some accountants of charging the bond discount to the earnings of a single year. Other accountants, disapproving of the practice in general, tolerate charging off a large part or even all the discount, if the year or years immediately following the issue of the bonds are abnormally prosperous. Their contention is that in this way it can be quickly and finally disposed of, so that there will be no temptation to refrain from making proper charges during years of meager earnings. For a concrete illustration of this observe the charge for the entire bond discount in the year 1913 by the American Can Company, Book III, Chapter II, note (c).

---

[2] "The Issue of Stock Below Par and the Sale of Bonds at a Discount," 50 Ry. Age Gaz., 1309 (1911). For the accounting treatment of bond discount, see Bliss, Management Through Accounts, pages 340-345, and Conyngton, Corporation Procedure, pages 1272-1280 and pages 1373-1375. One way of regarding the discount is simply as the amount which is to be deducted from the par value of the bonds in order to arrive at the net indebtedness on the securities. In other words, the debt originally amounted to the actual proceeds received from the bonds, and this is augmented by the amortization of the discount, since the interest incurred is only partly paid, the balance being added to the principal.

could sell its bonds at par, regulating the interest rate by the public estimate of the value of its credit. On a certain date the general mortgage bonds of the Northern Pacific had a value of 61 per cent, while those of the American Tobacco Company had a value of 119 per cent,[h] because the former pay the investor only 3 per cent on their par value, and the latter 6 per cent. The credit position of both bonds was about the same, a trifle less than 5 per cent. By regulating the rate of interest to the market demand for their securities, both corporations could have sold these or similar bonds at 100 per cent. A corporation whose credit is on a 5 per cent basis, may, for illustration, sell twenty-year 5 per cent bonds at par. The same bonds may be sold at about 114 if they are made to bear 6 per cent, or at 88 if 4 per cent. If this is borne in mind it is clear that when a corporation elects to sell its bonds for less than par it has secured throughout the life of the bond a lower rate of interest than the corporation's credit would warrant at the time the bonds were issued. For this reason the discount or deduction from par at which the bonds are sold should run through all the years that the bonds are outstanding. It should, in effect, be regarded as a kind of supplementary burden which the corporation shall be compelled to carry throughout the life of the bond, to balance a lower rate of interest than was warranted by the credit of the corporation when the bonds were originally sold. So regarded, it is a deduction from the net earnings, indistinguishable in theory from the regular interest on the bonds. In practice, however, it is not paid to the holders of the bonds, but is paid into a reserve fund which will extinguish the bond discount at the time the bonds are due. Conversely, in those rare cases when bonds are sold at a premium, this premium should be employed to reduce, each year, the interest paid on the bonds by a proportionate annual instalment. When the bonds fall due the discount or the premium, according as the bonds were sold for less or more than par, will have been entirely extinguished through the annual adjustments to the bond interest disbursements.[1]

---

[h] October 1, 1917. By January 1, 1920, the inherent prosperity of the tobacco industry was such that the value of the Tobacco bonds had been fully maintained, but that of the Northern Pacific had declined to 56 per cent.

These assumptions are of course considerably affected by the average investor's disinclination to buy a bond at a premium, on the one hand, and his habit of computing the actual yield on his bonds without reference to the amortization of bonds purchased at a discount. Consequently, the net cost to the corporation of the high interest bearing bond sold at a premium will always be greater than the net price of the same bond bearing a low rate of interest and sold at a discount. In actual practice, therefore, the corporation will probably realize most, and pay the lowest net interest for its money, if the coupon rate is made such that the bonds can be marketed to the ultimate investor at a price of approximately par or a little below.

---

[1] In accounting practice, the following course should be pursued:

1. Bonds sold at a discount. Create ~~a bond discount~~ account. Debit account with entire difference, including bankers' commissions, between net proceeds of sale and par value of bonds sold. Credit ~~account annually~~ with the bond discount divided by number of years the bonds have to run. The balance, at each annual closing of the books, is a deferred asset, that is, is an adjusting entry on the assets side of the balance sheet. When the bonds are paid, the original debit of the bond discount account will be balanced by the sum of the annual credits, and the deferred asset entry will disappear from the balance sheet. At the time bond discount account is credited with the annual instalment, bond interest account should be debited with the same amount. The result of this will be a charge against net profit of both the interest actually paid out and the bond discount instalment as well.

2. Bonds sold at a premium. Create a bond premium account. Debit annually account with difference between the par value of the bond issue and the actual cash proceeds received, divided by the number of years the issue has to run. Credit account at time of original transaction with the difference just mentioned. At the closing of the books each year the balance of bond premium account will be shown as a liability on the balance sheet. The account itself will become balanced and the liability will disappear from the balance sheet when the bonds are paid. At the same time that the bond premium account is debited with its annual instalment the bond interest account should be credited with the same amount. Consequently the charge against net profits will be the amount of interest actually paid, reduced by the bond premium instalment. In other words, the treatment of bond premium in accounting practice is exactly the converse of bond discount.

If ~~this practice is followed the annual charge of bond~~ interest would be approximately the same whether bonds are sold at par, at a discount, or at a premium provided the net cost of capital was the same to the corporation in each case. The assumption, however, does not consider interest on discount or premium balances which should be considered were the computations exact. Were this refinement considered necessary, the instalments could be computed on the basis of the usual sinking fund tables. Ordinarily, however, this is a superfluous and unnecessarily accurate adjustment.

Some accountants are unwilling to extinguish bond premiums through annual deductions from interest charges although they insist that the opposite practice in regard to bond discounts must be followed. Their contention is that the bond premium liability should be perpetuated as a kind of contingent reserve. Such a procedure is absolutely unsound. If extra reserves for contingencies are required by the exigencies of the business, they should be created by honest and straightforward methods. Under no circumstances should they be brought into the accounts by a deceitful subterfuge such as that of mislabeling the bond premium account.

Regarded in the light of this theoretical analysis, therefore, the sale of bonds at a discount is a method for reducing the apparent interest payments, and the sale of bonds at a premium is a method of creating a reserve to help carry the interest payments. If the discount were made great enough the bonds might conceivably be sold without interest—just as the Erie Railroad did in the case of the issue of one of its short-term notes. The sales of bonds at a discount and at a premium are devices for postponing or anticipating interest payments. As such they should be regarded as having the same force as direct interest charges, only the annual payments are adjustments on the company's books instead of actual disbursements of money.

Summary Statement.—At this point it may be convenient to summarize the conclusions of this and the preceding chapters. Gross profits represent the difference between the total receipts of a corporation and the total expenditures incurred by the actual conduct of its business. Net profits represent what remains of gross profits after the appropriate reductions are made for maintaining the full economic value of the capital used in the enterprise. From the net profit it is necessary to subtract the cost of all capital not owned by the corporation itself, or to add the receipts for the use of such of the corporation's capital as is employed in other enterprises. The remainder may be regarded as a kind of net stockholders' earnings or proprietorship surplus belonging to the corporation itself—its gain from the year's business. Out of this stockholders' surplus certain reserves may be set aside. What then remains may be distributed among the stockholders, in such a manner and under such conditions as may seem expedient to the directors. The immediately succeeding chapters deal with questions of financial policy determining the wise distribution of this stockholders' surplus.

CHAPTER V

SPECIAL RESERVES FOR BUSINESS CONTINGENCIES

It is presumed that surplus profits remain as a stockholder's or a proprietor's balance after the payment of interest and similar charges incident to the use of capital. This surplus—the net profits—must be apportioned by the directors to special and general reserves, to dividends, and to improvements. These three allotments will represent the final disposition of the corporation's net earnings.

Necessity of Special Reserves.—Theoretically speaking, the surplus earnings remaining after the payment of interest and other capital charges belong to the stockholders and might be entirely distributed in dividends, were the directors so inclined. Except in extreme cases this is not to be considered, and even in the extreme cases when it is possible, there is little to recommend such a policy.[a] The chief reason is that the compu-

---

[a] For years the Boston and Maine Railroad, under the Tuttle management, paid out every cent of surplus earnings after charges, to its stockholders. The following summary of the disposition of the railroad's earnings explains itself:

Total Receipts, Including Taxes	$32,440,595
Total Operations, not Including Maintenance	17,292,060
Maintenance in Lieu of Depreciation	6,770,606
Net Earnings	8,367,929
Interest and Rentals	6,429,919
Surplus Remaining to Stockholders	$ 1,938,010
Special Reserves	....
Sinking Funds on Bonds	151,285
Dividends	1,764,359
Margin Remaining	$ 22,366

This remaining $22,366 was only one-fourteenth of 1 per cent of the total receipts and only one-third of 1 per cent of the amount appropriated for maintenance in lieu of depreciation—a mere bookkeeping balance to obscure the fact that the entire annual surplus, and possibly more, was distributed to the stockholders.

tations of the accountant cannot be made with absolute accuracy, and even if these computations were accurate within the range of mathematics, they rest on the estimates of engineers, credit men, and others who are forced by the rigidity of figures to reduce variable and intangible values to money estimates. They assume that repairs have been adequate, that depreciation reserves are correctly computed, that inventories are correctly taken, that reserves against bad accounts are sufficient. Most of all they assume that nothing unforeseen is likely to thrust itself into the affairs of the corporation and cause a sudden and unpredicted fall in earnings—flood, fire, war, new taxes, confiscatory legislation, or (as with public utility corporations) the sudden demands of the public for unprofitable improvements.

Were accountancy perfect and its figures rigid and accurate, especially those concerning depreciation and reserves for future contingencies, then the entire surplus might be divided among stockholders with complete equanimity. But it is not. It is far less accurate than the accountant deludes himself into believing. The practical business man knows this. He takes the figures of the accountant as sophisticated guesses and directs his conduct on the assumption that the accountant has forgotten not one thing, but many things. He fortifies himself against these omissions of the accountant by refusing to distribute all earnings in dividends, reinvesting a part of the surplus in betterments and improvements. This reinvestment

---

This policy was continued for many years, as is evident from the following brief summary:

Year	Total Earnings	Maintenance	Dividends	Annual Surplus
1902	32,441,000	6,771,000	1,764,000	22,366
1903	34,265,000	6,674,000	1,771,000	22,186
1904	35,471,000	7,124,000	1,779,000	70,456
1905	36,801,000	7,898,000	1,806,000	76,926

These were among the most prosperous years in the history of American railroads. The ultimate failure of the Boston and Maine requires no further explanation.

For a summary representing the continuation of this policy during the later years just before the failure of the road, see Book III, Chapter VI, note (d).

of a portion of the stockholders' surplus acts as a kind of safeguard against the dogmatic liberalism of the accountant.

Classification of Special Reserves.—But it frequently happens that some vague guess may be made concerning at least a part of what must be set aside from current earnings to care for future contingencies. These guesses are far less accurate than even the engineers' estimates of the life of equipment or the accountants' computations of reserves for contingent liability on discounted bills. When rigidly analyzed, the reserves set aside to protect the corporation against unforeseen events fall into four more or less vaguely defined classes. There are those reserves which must be set aside for unpredictable taxes, assessments, and special levies of governmental bodies. Such reserves are generally grouped together under the heading, "Reserves for Taxes." Second, there are those reserves which must be set aside to care for unusual destructions to physical property. Such reserves may, in a large measure, be omitted if ample insurance of every variety is carried. On the other hand, if the corporation carries its own insurance, as is done in many cases, the reserves set aside in lieu of the payment of insurance premiums come under this head. Third, reserves should be set aside to care for unremunerative expenses involved in meeting unforeseen demands of the public. Such reserves are of most significance among public utility corporations likely to be confronted with demands for the elimination of grade crossings, smoke nuisance, for burying wires, or for repaving the right of way. None of these increase appreciably either the gross or the net earnings of the corporation. Last; a corporation may wisely set aside reserves to care for sudden and unavoidable fluctuations in the economic demands for its product, or the availability of its raw material—panics, booms accompanied by scarcity of labor, protracted business depressions.

This outline of different types of special reserves is perhaps not exhaustive, nor is each of the types equally pertinent to all kinds of business. Nevertheless, practically every unforeseen contingency a corporation is likely to be called upon to meet and pay for, may be guarded against by reserves which come into one or another of these general classes. And it is much better consciously to acknowledge the possibility—even probability—of grave future difficulties and unexpected expenses, by specifically providing reserves, than it is merely to hold back earnings without facing the grounds which make such a course necessary or expedient.

Reserves for Taxes.—Reserves for taxes do not ordinarily lead to confusion. Taxes are in part known before the period during which they accrue, and in part not. In cases like franchise taxes, excise taxes, capital stock taxes, they are known in advance and may be accurately apportioned. Such taxes are a direct operating expense and a discussion of them is out of place at this point. But there are other kinds of taxes which are only to be apportioned approximately; and, in unusual cases, the corporation must make reserves against the payment of taxes the amount and the principles of levying of which cannot be even vaguely guessed at. The excess profits tax for the year 1918, not determined by Congress until February, 1919, was of this description. It is these various unpredictable and often undetermined levies which the corporation must protect itself against by special reserves for taxes. This account should include two kinds of reserves. One should stand for reserves for taxes certain to be levied, a customary proportion of which has been charged already against gross profits as part of the operating expenses. The other should stand for reserves for those taxes considered probable but not certain. Such instances occur when the general social or political situation indicates that new tax laws are likely to be enacted which will involve additional tax payments not included in the ordinary estimates.

Reserves for taxes in excess of those ordinarily charged against gross earnings, the first kind of tax reserves just mentioned, must be set aside either because the fiscal year of the corporation does not coincide with the tax year, or because an allotment for taxes is charged against the monthly gross earnings account during the earlier months of the year before the current assessments are known. Thus if the fiscal year of the corporation begins July 1, as was the case with a majority of railroads until lately, the taxes for the last six months of the railroad's fiscal year must be based on those of the full calendar year of which the railroad's year is only a part. The road must therefore set aside a reserve from its surplus to care for such cases in which it has underestimated assessments to be apportioned to the first six months of the calendar year.[b] A similar situation arises when the corporation charges the earnings of each month with a constant amount representing one-twelfth of the estimated taxes. Also, as is often the case, a corporation may protest against an increase in certain of its tax assessments. When the matter remains unsettled or is in litigation at the close of the fiscal year, the corporation must set aside from its surplus a reserve to care for the excess payment in case of an adverse decision.

The other kind of special tax reserves arises in connection with new taxes likely to be levied, the full amount or extent of which is not manifest at the time the statement of earnings is drawn up. Ordinarily the computation of such reserves has not presented much of a problem, since new tax legislation is accomplished but slowly. Yet at certain times during a period of rapid change of the government's fiscal policy, the amount of taxes a corporation will be called upon to pay cannot be determined beforehand. This was true to some extent during the period from 1910 to 1914, when various forms of the income tax were being tried out. It was notably true during the first two months of 1919, when Congress was wrestling with the question of the excess profits tax. At the beginning of 1919 the management of American corporations knew that the tax law, as ultimately to be enacted, would apply to the earnings of the previous year, that of 1918. Some Congressmen advocated an excess profits tax as high as 80 per cent, while others went on record as opposed to this general form of tax. A majority of the members of Congress stood between these two extremes, so that the corporations felt reasonably sure that some form of an excess profits tax would be included in the war revenue bill being written during late winter. But their fiscal year had already closed, December 31, 1918, two months or more before the law fixing the method of taxation for the year 1918 was passed by Congress. Under these circumstances the corporations, especially those profiting greatly because of the war, felt it necessary to set aside a considerable part of their earnings to meet the tax which they felt sure would be finally enacted. The amount was the vaguest kind of guess. But it had to be deducted from the surplus of the year, before appropriating any part for dividends. If the profits were conspicuously large compared with former years, it might be that the amount of the excess profits tax reserves would represent the largest single appropriation from the year's profit and loss surplus.

---

[b] For illustration, consider the case of a road having its fiscal year ending June 30, 1917. Most of its taxes are assessed on the basis of the calendar year, but the assessment and rate are probably not known until the autumn. On June 30, 1917, it has been able to determine exactly the taxes properly assessed against the earnings for the first six months of its fiscal year—up to January 1, 1917. But the corporation cannot, except on the basis of the previous year's expenses, determine those properly chargeable against the earnings of the last six months of its fiscal year from January 1, 1917, to June 30, 1917. The railroad's accountants must therefore estimate the tax reserves for this period, but the only basis for such an estimate is the experience of the year 1916. Actually the taxes levied by all governmental units increased very much in 1917 over those of 1916, due to the war conditions. It was necessary, therefore, for the road, in addition to its customary tax charges against gross earnings, to set aside a reserve from surplus to meet the additions to its estimated payments for taxes, which would become known only in the autumn of 1917, after the books for the fiscal year were closed.

A certain industrial, before 1917 regarded as only a partial success with large, preferred-stock unpaid dividends accumulated, found itself suddenly in the midst of great success. In September, 1917, prior to the passage of the revenue bill of October, 1917, the executive committee was able to estimate that the total profits for the year would amount to over $12,000,000. Ordinarily they had hardly amounted to $2,000,000.

Accordingly, as a result of the various discussions concerning dividend policy and the apportionment of earnings, the management set aside an excess profits tax reserve of approximately $4,000,000, or twice the previous total annual earnings.

Extreme cases were found among Canadian corporations. The actual mining costs of the Kerr Lake Mining Company, the operating company, for the year ending August 31, 1917, were $196,000, which included all the expenses—even development expenses, repairs, and boarding house deficit. Whereas the taxes assessed by the Dominion Government were $101,000—over a half of the costs of mining operations.

Reserves for Property Destruction.—The second large class of special reserves that must be set aside for the general surplus are those having to do with protection against unusual and unforeseen losses to property. Ordinarily such losses are carried by insurance, and the insurance premiums, like taxes, are charged directly against the gross receipts, as one of the direct expenses of the business. Under certain circumstances, however, special and somewhat unusual precautions must be taken either in addition to the regular provisions for insurance or else in lieu of the ordinary forms of insurance.

Ordinary fire insurance policies can be secured when the corporation's property consists of buildings and structures; such insurance, especially when distributed among several underwriting companies, may be relied upon as adequate provision against the hazard of fire. It is possible also for the corporation to protect itself against incidental losses occasioned by fire, such as loss of revenue during reconstruction or penalties under breach of contract to deliver finished goods. In the majority of cases, however, a corporation will not take out such insurance to protect it against these contingent hazards, because of the great expense and the difficulty of determining the conditions and adjusting the claim in cases of loss under the policy. Yet in very many businesses, reserves must be set aside for losses of just such kinds. Contracts often call for delivery of merchandise within time limits, a breach of which involves severe penalties. In case of fire it may be necessary to operate night shifts at great additional expense or else go into the market and pay premiums for the quick delivery of goods, in order to avoid the heavier losses resulting from a broken contract. In brief, many incidental losses are possible which are not, and in many cases cannot be, guarded against by the ordinary forms of insurance.

Insurance Reserve.—But the largest of these reserves arises when the corporation carries its own fire, marine, or casualty insurance. Such a policy is advisable provided the property of the corporation meets the following conditions: (1) the units of property must be small; (2) they must not be physically connected; (3) the replacement of one unit must not dislocate the regular course of the business of the corporation. The rolling stock of transportation companies, even their small line stations, consists of property of this description,[c] as do the separate factories of large manufacturing concerns with widely scattered plants. Canning and preserving companies with many small plants in different parts of the area where their raw material is grown, are of this description. Grain companies, owning many small line elevators, too, meet these conditions.

It is perfectly possible for a transportation company to carry separate insurance on each one of its freight cars and passenger coaches, but it is not expedient from the point of view of the corporation, or socially wise. The purpose of insurance is to distribute unusual losses by shifting the burden from one individual to a large number of individuals. The insurance company justifies itself, economically, by supplying the clearing house and effecting the distribution of the losses.

---

[c] Railroads are particularly well suited to carry their own insurance. Except for their urban terminals no single hazard amounts to much and the total annual fire losses on a single system are small compared to the total property or the total income.

Certain data concerning the experience of the New York, New Haven and Hartford Railroad in its insurance accounts bear this out. During the seven years preceding June 30, 1915, the average annual income of the New Haven Railroad (not including its allied enterprises) was $63,200,000. Its fire loss averaged $140,000 a year, or about two-tenths of 1 per cent. The year ending June 30, 1915, is probably fairly typical. The gross income was $65,379,264. There were 247 separate fires, involving a loss of $60,000, or only $243 for each fire. The New Haven's burnable property was estimated at $85,000,000. The fire loss for this year was therefore only one-tenth of 1 per cent of the gross income and less than one-tenth of 1 per cent of the total burnable property.

When, however, the corporation owns a large enough aggregate of individual pieces of property, so that it can itself effect a distribution of the risks and the "clearing" of the losses, it can well save the cost of the machinery of operation of the insurance company, amounting usually to at least half the ordinary premiums. This can be done if the corporation charges itself with the ordinary premiums, setting aside the amounts in a separate fund into which are brought all the premiums and from which are drawn all the losses. And if the nature of the corporation's physical property is such as to meet the conditions defined above—property consisting of small, separate, and relatively inexpensive units—it is probable that the corporation will, in the long run, profit from its insurance account. For, since a considerable portion of the premium is represented by the ordinary expenses of operating the insurance company, which are saved by the corporation, it will create for itself within its own insurance reserve a kind of insensible reserve which will, as soon as a considerable fund has been established, fortify it against unusual losses.[d] Outside of the fire hazard, the practice has been used, with profit, by corporations engaged in the shipping business, especially when the corporation owns a fleet of small, relatively inexpensive ships. This policy of self-insurance should, under no circumstances, be followed by corporations owning a few vessels, because sufficient distribution of risks cannot be obtained.

When the corporation undertakes to carry its own insurance it should set aside from the general surplus—certainly during the first year the practice is followed—a fund to care for extraordinary losses in addition to the regular premiums. This requirement is based on the presumption that, although the corporation will gain on its insurance account in the long run, it is likely to lose in the short run. There must be special precautions to safeguard against a sudden loss. After the system is well-established, and the accumulation of annual premiums charged against operation has created an insurance reserve sufficient to care for any normal loss, the special reserve originally set aside from the general surplus may be brought back into the general surplus or continued indefinitely as a special fund designated by such a term as "Extraordinary Insurance Reserve," "Conflagration Reserve," or "Unappropriated Insurance Reserve." Such a fund would be used to absorb any unusual losses, in case the ordinary insurance reserve should prove inadequate to cover these losses at any time.

---

[d] Needless to say, the mutual company is based on this presumption of economy. But it is successful only when operating in property meeting the conditions heretofore described—many units of small size, widely separated. As a matter of empirical observation the permanently successful mutuals are, for the most part, those which meet these conditions, such as farm mutuals, and mutual companies insuring factories within a single industry.

Perhaps the most conspicuous case in which a reserve for the fire hazard should be set aside directly from the general surplus is when the corporation owns forest property that cannot be insured. This is very important with paper and tanning companies owning their own woodlands. Ordinarily wages of fire wardens and rangers would be a direct charge to operation. But this kind of protection is not enough, especially if the corporation has a considerable proportion of its assets invested in timber lands. True, a reserve could not be set aside compatible with the premiums that a fire insurance company would feel compelled to charge on timber property,[e] but some regular appropriation based on the cost of the stumpage must be set aside; else losses resulting from forest fires will be direct capital losses. Unless the corporation is fortified in some other direction such an unprotected loss may seriously affect the corporation's solvency.[f]

---

[e] For the reason that the fire hazard of growing timber is so difficult to rate—so affected by the "moral hazard"—all fire companies are unwilling to write timber risks without charging an extremely heavy premium. This makes it out of the question for the corporation to carry timber insurance policies.

Investment of Insurance Fund.—It is obviously reasonable that the special insurance reserve and the ordinary insurance reserves resulting from the accumulation of annual allotments from earnings, should under no circumstances be invested in property subject to the same hazard as the property for the replacement of which the fund is maintained. A shipping corporation, for example, carries its own insurance. As a result of this policy, $2,000,000 has been accumulated from premiums with which the corporation has charged itself, and in addition it has set aside $50,000 a year for ten years from its general profit and loss surplus to care for "war or other unusual losses." It is evident that these two funds should not be invested in any kind of property subject to the marine hazard. If the railroad corporation insures its own stations, the fund should not be invested in station property; if a grain company insures its own elevators, then the reserve is not to be placed in elevator property. This policy must be rigidly and scrupulously followed, else the whole principle of insurance reserves breaks down. And it is difficult to observe. Most business men are familiar only with their own or allied businesses, seldom with the general investment business. Moreover, if the insurance reserve funds accumulate in considerable amounts there is always a temptation to use the money for the general purposes of the corporation, where, unquestionably, it will earn more than in low interest paying, readily marketable securities.[g]

---

[f] It has been suggested by some that the annual growth over a large area represents an increase of capital, which is itself a sufficient reserve against the fire hazard. This would be true only if the tracts were small and widely separated geographically, and provided the corporation made no annual cut (unless the stumpage value of such cut were charged to capital). Ordinarily, however, the loss in interest of growing timber more than counterbalances the annual growth (this is certainly true of fully grown spruce forests in New York, New England, and Southern Canada), so that an additional special appropriation from the general surplus must be made for the fire hazard. One may note in passing that the accounting of forest property is a subject fraught with hopeless confusion. Foresters have sought to prove that it "pays" to conserve timber lands, but their calculations are often in violation of the most evident principles of accounting.

As the outlay for this class of improvements—like elimination of grade crossings and burying wires—is very large, it is unfair to charge the costs of the expenses of operation of the single year in which expenditures are made. The necessity for such improvements has probably been growing as the community grew, and their advantage will extend far beyond the single year. Furthermore, it is improper to defray their cost by increasing the admitted plant assets of the corporation, because the plant is worth no more, for the purpose of making a profit, after the improvements are made than it was before.

It should be noted that the word "unproductive" is used in its business sense of not being immediately productive of any increase of earning power. Many improvements are unproductive from the accounting sense of not leading directly to an increase of profits, which are tremendously productive in the social sense. Thus the elimination of grade crossings is not directly productive to the railroad, but it is unquestionably productive to the community and human society as a whole.

Many other such unremunerative improvements are found to be necessary among public utility companies. The burying of their wires is required of telephone companies in urban districts; electric light companies are constantly confronted with expenditures required by the public—ornamental street lighting has recently become an issue in many cities. Removal of wires from main streets is another public demand.

Nor are such expenditures confined to public utility companies. Manufacturing companies are required to employ expensive devices for consuming their wastes, and even banks and retail merchants are called upon to make heavy and extraordinary contributions to social needs all out of proportion to any corresponding increase in their profits. Local banks feel constrained to subscribe to the new wing to the hospital, the Legion endowment, or the Old Folks Home. Great banks like the Bank of Montreal contributed freely to certain charitable purposes during the early part of the Great War. Retail storekeepers are always contributors to community welfare movements. In a sense these contributions are advertisements, but the broader and truer interpretation is that they are a part of the cost of communal and social welfare which all alike must bear. They are in truth social taxes. In the preliminary annual report of the Dayton Power and Light Company for the year ending December 31, 1913, the year of the Dayton flood, occurs the following quotation: "When the 'flood prevention fund' was agitated in Dayton, our Company (together with The National Cash Register Company) was the first to contribute and our subscription of $50,000 to this fund made a profound impression on the community at large and greatly stimulated the interest that finally resulted in raising a total fund of $2,159,744 for flood prevention." Thus it may cost a railroad $500,000 to eliminate a grade crossing in a populous suburb of a large city. Clearly the need for the change has been increasing as the suburb grew and its advantage will be felt for years to come, yet the railroad will collect no more fares after the grade crossing is gone, nor will its cost of operation be appreciably less; its property is no more valuable, as a railroad, than it was before the money was spent. It would be misrepresentation to mark up the capital value of the railroad by the cost of the improvement, in spite of the practice tolerated by many English accountants who fail to analyze the purposes behind their capital expenditures.

---

[g] It is possible to study the insurance reserve fund investments of the United Fruit Company. Through a series of years, from 1901 to 1914, the company averaged over 10.7 per cent on its capital invested in its regular business, but only 4.3 per cent on the funds in its insurance reserve, consisting largely of high-grade first mortgage railroad bonds.

The only logical method of treating such expenditures is that of creating a reserve fund for them through annual appropriations from the general surplus. The latter are the only wise media for insurance reserve investments. A desirable arrangement is about one-fourth of the fund in bank certificates of deposit payable thirty or at most ninety days from demand, one-fourth in active, listed first mortgage railroad bonds, and the other half in municipal and government securities. If such an arrangement is followed, little care will need to be exercised by the treasurer of the corporation in the investment field with which he is unfamiliar, and a large proportion of the fund will be immediately realizable in cash if unusual losses make demands upon the fund.

Reserves for Unproductive Improvements.—A third set of reserves must be set aside to meet the large expenses incurred in complying with changed social and public requirements. These may be considered unproductive or unremunerative improvements. They represent the costs incident to complying with a more enlightened social consciousness, either in the direction of greater safety, greater convenience of the public, a keener social morality, or even a more critical sense of communal beauty and fitness. As a class the expenses are very numerous—ornamental street lights, fire escapes, automatic signals, "welfare" improvements, "full crew" laws, contributions to hospitals and public improvement funds. When these expenses are individually small they are merely charged against the ordinary costs of operations and require no further comment. But certain of them are very large, such as elimination of grade crossings, paving between tracks, burying of wires, extensive ornamental lighting systems, elimination of smoke, fumes, and odors. These are all unprofitable, in the view of the corporation's system of accounting, in that they do not lead to an increase of earnings. Such large expenditures are more or less certain in all industries and frequent and burdensome in some. The cost of paving streets between the tracks is imposed, sooner or later, upon all urban traction companies. The elimination of grade crossings and the providing of unnecessarily elaborate urban terminals are demanded by the public of every town of importance in the United States. For illustration, the appropriation made by the Dayton Company for flood prevention, mentioned in the preceding paragraph, did not directly increase its earnings. In that sense it was unproductive. As an unproductive appropriation it should have been paid for out of a reserve fund that had been accumulated out of annual appropriations to take care of just such socially necessary, but individually unproductive improvements. This idea is admirably expressed by an engineer referring especially to traction companies. "Every company occupying public ways is confronted with the certainty that they will be compelled to make costly changes of plant owing to changes made in state or municipal regulations. It is proper that a company should make annual appropriations to provide funds to meet obligations arising from such causes." [1]

Difficulty of Estimating Requirements for Unproductive Improvements.—The obvious difficulty in making these appropriations is the evident uncertainty of the cost and frequency of such unprofitable improvements. This difficulty is unquestionably real, but it can hardly be advanced against the wisdom of the policy. The fact that the amounts to be appropriated from the general surplus to create a fund to meet an uncertain future expense are themselves uncertain and difficult to estimate, is no basis for the presumption that such a fund need not be created. In truth the very uncertainty of the demands to be met by the fund is the chief cause for its existence. In reality the uncertainty of such improvements as we are here discussing is far less disconcerting than the indefinite terms by which they must be described. A railroad operating in a thickly settled locality must realize fully that the various communities which it traverses will require, sooner or later, the elimination of one grade crossing after another. Particular costs at particular times may remain indeterminate, but the all-important fact that the improvements must be made is certain. And some working hypothesis can be developed by the engineering department, relying on the law of averages.

---

[1] Jackson, W. B., "The Depreciation Problem," 37 An. Am. Ac. Soc. Pol. Sci. 41 (Jan., 1911). Unfortunately what Mr. Jackson regarded as "proper" was not done by traction companies, except in very few cases.

For example, in this matter of the elimination of grade crossings by railroads, it is possible for the chief engineer to work out a kind of "experience" of his road, by which he may make a plausible guess as to the point, in increasing population and traffic, at which the community will demand the change from a grade to a submerged or overhead crossing. The organized and classified experience of an individual road in this particular may be compared with that of other roads operating under analogous conditions. With these guesses before him the chief engineer will be able to estimate the amount that the road must probably expend during the succeeding ten, fifteen, or twenty years on this single item. It is then a comparatively simple matter to distribute the total amount evenly over the period.

The question naturally arises as to whether some of the cost of the unprofitable improvements may not wisely be written off during a term of years following the completion of the enterprise. If such a policy be followed it will be necessary to carry forward a part of the cost as a deferred asset, to be gradually extinguished during the term. Such a policy may have the advantage of being more certain and definite in its demands than that of creating a reserve fund, but it has the glaring defect of throwing the entire expense into a relatively short period or prolonging indefinitely the deferred asset. Moreover, since the cost cannot be transferred onto the shoulders of the community by an increase of rates, it is probable that the period following the improvement is no better able to bear the expense than the preceding period. Were it possible to increase the rates for service or otherwise increase the earning power of the corporation by reason of the improvement—as water companies sometimes do on the erection of a filtering plant—the improvement would not be unprofitable and hence would be outside the present category.

Reserves for Business Uncertainties.—The last, and in a sense the vaguest, group of special reserves that should be set aside from the general surplus, is that to care for abrupt changes in the demand for the product. Such reserves are especially necessary when it is obvious to the management that an unusually large surplus of net earnings has arisen because of an abnormal demand for the product or abnormally favorable conditions under which to purchase raw material. The character of the situation is indeed too vague and uncertain to permit of establishing invariable principles or even convenient rules of practice. It is certain, however, that when large earnings have resulted from abnormal conditions which are of a relatively temporary character and over which the management can maintain no control, some reserve must be set aside to fortify the corporation against losses when conditions become unusually unfavorable.[h]

Difficult as it is to determine any average reserve that must be set aside in abnormally prosperous years, it is even more difficult to determine under what conditions such a reserve should be utilized. Clearly the purpose of setting aside the reserve in the prosperous years is to afford a fund to equalize the excessive production costs or even the deficits during years of abnormally bad earnings.[i] But what shall be the criterion which shall determine whether or not a bad year is so bad as

---

[h] The fluctuating earnings of the railway equipment companies have been cited elsewhere as illustrative of abrupt fluctuations, and the illustration will be used as an extreme instance of yearly fluctuations in earnings in the following chapter, but at this point it is important to note the abrupt change from the year ending June, 1907, one of the "boom" years of recent industrial history, to that of 1908, a year of depression.[2]

[i] Special unforeseen catastrophes should be regarded in the light of years of abnormally bad earnings. And there should be this reserve to care for both the direct and indirect expenses and appropriations required. For example, the Dayton Light and Power Company, referring to the disastrous flood of March, 1913, states that to the admitted earnings "should be added the net business lost after the flood because the power plants were 'down' and our consumers could not use the current, and also the current given away—free—after the flood. Also the increase in operating expenses directly resulting from the flood, all of which must be added at this point in the year's business of 1913 to properly compare with the year 1912 . . . $115,250." The Dayton Power and Light Company charged this off for the current year of the flood. This was the proper thing to do under the circumstances, but it reduced the annual profit and loss balance to such an extent as to give a wrong impression of the company's

---

[2] For further and extended discussion of this question see Book II, Chapter V, and Book IV, Chapter III. Note particularly the abrupt fluctuations of earnings of the American Locomotive Company, page 559; and the table given on page 560.

to permit the management to draw on this reserve to offset its losses? There is no infallible foresight. No invariable rule can be laid down, and even if it could, the decision in any given case is linked with other matters of general financial policy, such as the need for maintaining the credit of the corporation and the general dividend policy.

Perhaps the most good that such a reserve can accomplish is the psychological influence exerted on the directors and the stockholders by the recognition and acknowledgment of the principle that abnormally large earnings have been almost invariably followed by years of depression which produce abnormally small earnings. The admission of this general economic principle must act as a deterrent to prevent the dissipation of assets by the payments of excessive dividends or the unwarranted expenditures for new construction.[j]

These four uncertainties in the future of every industry—unknown taxes, unknown property losses, unknown large unprofitable improvements, and the unknown fluctuations of business activity—present uncertainties which, though indeterminate, are nevertheless real. They must be provided for. The corporation must fortify itself against them in years of abundance. Only through the system of special reserves deducted directly from the profit and loss surplus of the year can this be done with assurance and with safety.

After all these reserves are set aside there remains a surplus that the directors may, conservatively, distribute in dividends or reinvest in new property for the general benefit of the corporation. A middle course is usually followed, part being allotted to dividends and part to reinvestment. The principles that must guide this decision are discussed in the succeeding chapter.

---

true earning capacity. Had there existed a "Reserve for Unforeseen Contingencies," created during the preceding years, a large part of this special loss of $115,250 could have been charged to it.

[j] The acknowledgment of this principle frequently explains the existence of distinctly formal and somewhat arbitrary conditions observed by certain corporations. For example, the Sioux City Service Company is required by the provisions of its First and Refunding Mortgage to set aside at least $40,000 a year. Half of this fund may be invested in bonds and the other half may be placed in the permanent improvements of the company.

CHAPTER VI

THE PRINCIPLES GOVERNING THE DISTRIBUTION OF PROFITS TO STOCKHOLDERS

Paying Dividends Out of Capital.—That which remains of net profits after all interest charges have been met and all special reserves set aside may be used by the stockholders as their directors see fit.[a] It may be called the "stockholders' surplus." The directors must, however, determine what proportion of this surplus should be paid over to the stockholders. Many and varied considerations tend to influence the directors in determining the proportion of the total net surplus that may expediently be distributed among the stockholders and the proportion that should be kept in the business. This question is in the end not one of the theory of accounts or of business law or even of universally applicable financial principles. It is purely one of individual business expediency.

dividends
of capital

Underlying this principle of business expediency, as an inflexible rule, is the clearly established principle of law and finance that dividends may not be declared out of capital. The law, apparently, interprets capital somewhat roughly and does not rigidly insist that proper depreciation charges shall be set aside before computing net profit. But it has made it clear that there cannot be a direct payment of dividends in excess of what has been broadly recognized by even loose business methods as net profits or accumulated net profits. Further than this there is absolutely no statutory or other principle of law that determines or even concerns itself with the proportion of the gross or net earnings that may be paid to the stockholders of a corporation.

---

[a] Strictly this is true, although there may exist provisions in mortgages or bond indentures requiring that some of the net profits remaining to the stockholders be temporarily segregated and used as special funds. Sinking funds are of this nature. (See Book III, Chapter VIII.) But it should be observed that the property represented by such funds belongs to the stockholders and will come, ultimately, under their complete control.

Misrepresenting Earnings and Withholding News of Dividend Action.—There is no other principle of law, governing dividend payments one ought to add, except the principle of law and common morality that the declaration of dividends should not be based on misrepresentation. This would be understood without saying had it not been for several notorious instances in which the managers and directors deceived the stockholders. The most obvious kind of misrepresentation, like that cited already in the case of the American Malting Company, is the overstatement of earnings in order to present an accounting justification for the payment of unearned dividends. The real justification is some ulterior motive, such as a vindication of a bad management,[b] the maintenance of the market price of a company's stocks,[c] the maintenance of the legality of the company's bonds among savings banks,[d] or the

---

[b] In 1872, General Daniel E. Sickles, backed by English stockholders, turned Jay Gould out of the management of the old Erie Railway. He began immediately to pay dividends on the preferred stock and soon on the common as well. In 1875 a committee of English bondholders found that the earnings for the previous three years had been represented to be $5,352,673, whereas they were in truth only $1,008,775. For details see Daggett, S., Railroad Reorganization, 37 (1908); 2 Hepburn Com. Rep. Exhibits, 623.

See Book I, Chapter III, note (kk).

[c] This is the usual excuse for an unwarranted dividend action. Sometimes the price maintenance is to assist an inner clique to sell their stock (the American Malting Company case) and sometimes to reassure many small investors of the company's continued prosperity. This was the excuse alleged to justify the New York, New Haven and Hartford Railroad's directors in paying unearned dividends.[1]

[d] The New England railroads, particularly the Boston and Maine, paid dividends long after ordinary business judgment required that all dividends be suspended, very largely because a suspension of dividends would debar further issues of the company's bonds from Massachusetts savings banks. The following summary shows clearly this ill-fated policy in the case of the Boston and Maine Railroad:[2]

---

[1] Book III, Chapter III, note (j).

For an extended discussion of profits available for dividends from the standpoint of the law and good accounting practice, see Reiter, Prosper, Jr., Profits, Dividends and The Law (1926).

[2] For previous improvident dividend policy see Book III, Chapter V, note (a). From the above it will be observed that the Boston and Maine Railroad continued to pay unearned dividends for three consecutive years. For later results, see Book IV, Chapter IV, note (o).

sale of bonds at a higher price than actual earnings would justify.[e]

In the past many railroads have been guilty of such deceit, and one of the clearly apparent advantages of a uniform system of railroad accounting has been to make this particular species of misrepresentation more obvious and more certain of discovery. But another kind of misrepresentation, sometimes indulged in, is that of withholding by the directors of information concerning dividend action. The most notorious

---

YEAR ENDING JUNE 30

	1909	1910	1911	1912	1913	1914
Tot. Revenue	$39,528,698	$43,357,175	$44,815,084	$45,990,364	$48,513,507	$47,413,90
Net Earnings from Operation.......	10,177,224	10,732,983	8,506,216	9,832,994	9,930,596	8,760,460
Fixed Charges	7,789,622	7,882,362	8,150,228	8,542,746	9,880,899	10,805,202
Net, after Charges....	2,387,602	2,850,621	355,988	1,290,246	49,697	2,044,742*
Dividends, Preferred...	188,988	188,988	188,988	188,988	188,988	....
Dividends, Common...	1,628,373	1,679,532	1,769,983	1,578,963	1,185,150	....
Betterments..	41,099	198,842	....	....	....	....
Balance......	529,143	783,260	1,602,983*	477,704*	1,324,441*	....

* Deficit.

[e] The Chicago, Milwaukee and St. Paul Railway built a Pacific Coast extension, known as the Chicago, Milwaukee and Puget Sound Railway, at a cost of approximately $150,000,000. The money was furnished by the parent road, the latter taking certain stock and upwards of $100,000,000 in Chicago, Milwaukee and Puget Sound Railway First Mortgage 4s, 1949, in return for the construction money advanced. These bonds remained in the St. Paul's treasury from 1909 to 1911, when it was decided to market them. To do this the earnings of both the parent and its subsidiary were fictitiously increased during the preceding year so as to make the credit of the parent and earning capacity of the subsidiary appear to be more substantial than they really were. Of this episode Ripley reports, summarizing the results of the Interstate Commerce Commission's investigation: "Desiring to create a favorable market for the sale of securities in France, all interest, rents, and revenues for the three years of construction work were included in the income account for 1910 alone. At the same time operating expenses were reduced by crediting items, such as salvage from cars destroyed, as far back as 1907. By this means the income of the St. Paul was overstated in the given year by more than five million dollars. . . . Notwithstanding the gravity of these offenses, the delinquencies in the accounting of the Puget Sound Company were even more significant. Most of the classical expedients for overstating income were resorted to. . . . Construction material was actually charged higher rates than those provided for in the published tariffs. Interest items were manipulated, and no charges whatever for depreciation of equipment were made. Had the established accounting practice been adhered to, the reported income of $2,255,000 would have been practically eliminated, and the dividend of 2 per cent paid to the parent company out of 'income' would really have come from capital."[3]

---

[3] Ripley, W. Z., Railroads, Finance and Organization, 23 (1915). For an exhaustive and illuminating discussion of this notorious episode see 29 I. C. C. Rep. 508.

case of this kind is that of the action of the Union Pacific Railroad's directors in August, 1906. By reason of large hidden earnings of the Union Pacific's subsidiary, the Southern Pacific, the latter came, in the summer of 1906, into a position to pay dividends into the treasury of the Union Pacific. Accordingly the directors of the two roads met simultaneously. The Southern Pacific directors declared an initial dividend of 2½ per cent and immediately thereafter the Union Pacific Railroad's directors raised its semi-annual dividend from 3 to 5 per cent. But this action was rigidly concealed for two days. Meanwhile tremendous activity occurred in the market for the company's shares. More recently the directors of the B. F. Goodrich Company concealed a dividend action on the preferred shares for a period of six weeks. During this period the stock fell from $89 a share to under $74 a share, and the decline was accompanied by heavy selling.[f]

These instances are, fortunately, sporadic and called forth the condemnation they deserved. In every direction there is a growing demand that extreme care be exercised that all representations concerning earnings and dividends made by a corporation's directors to its stockholders shall be not merely technically true but implicitly and unequivocally true.

---

[f] For example, the *New York Evening Post* of December 6, 1913, had the following straightforward comment:

"On Wednesday of this week, in the formal announcement to preferred shareholders of the B. F. Goodrich Company that the regular dividend of 1¾ per cent had been declared on their stock, the statement was made that this dividend was declared six weeks ago, on October 22. Harmless as the statement appeared to be, it brought such serious criticism against directors of the B. F. Goodrich Company that the extreme means of punishment was suggested of removing the Goodrich shares from the Stock Exchange list.

"For, by withholding formal announcement of their dividend action until this week, directors of the Goodrich Company permitted the preferred shares to fall in price from 89 to 73⅜, investors in the company and Wall Street speculators selling the stock through the month of November on rumors that the dividend was to be cut or passed.

"The fact that no way has been found for punishing those guilty of the Goodrich episode has not lessened the indignation that is felt at the entire episode; rather it has led to a general demand on the Stock Exchange for a rule that will in future make it compulsory for all dividend announcements to be made within forty-eight hours after they are declared. Another need it has emphasized is that of more and better laws governing the management of corporations. The Goodrich incident has uncovered an old condition wherein certain directors admit they knew nothing of what other directors were doing. The Goodrich dividend was declared on October 22, at Akron, Ohio, by a quorum of the board. Not until this week did certain of the other directors know the dividend had been declared. Here is a condition disclosed which clearly needs remedying."

Considerations Determining Dividend Policy.—The dividend disbursement is essentially a problem of business expediency and can be treated only in this light. Many circumstances tend to affect this expediency, but when they are all gathered together it is seen that certain questions are of great importance. The first and foremost is the proper balance between the dividend disbursements on the one hand and the amount of yearly earnings that should be set aside and reinvested in the business on the other. In other words, the fundamental question of dividend policy is that of the proportions of annual earnings that shall be distributed and that shall be retained. Secondary to this question is that of the manner in which the dividends shall be paid.

If the accounting methods of a corporation were perfect, and liberal reserves for all contingencies set aside in accordance with the principles described in the preceding chapters, the only reason that would lead to the retention of any earnings in the business would be the belief that the money would earn more for the stockholders in the business than if it were distributed among them. But the accounting methods are not perfect, and quite generally corporations do not set aside specific funds analogous to those heretofore described, especially those for the less obvious uncertainties of the business. Furthermore, there is always the possibility of contingencies which may render insecure the foundations upon which the computation of earnings rested—such as a sudden decrease in the value of inventories carried over from the previous year, a flood, or even the organized destruction of property by revolutionary uprisings.

Actually, therefore, the question of the apportionment between the stockholders' surplus retained in the business and that distributed, rests on these practical considerations: first, the amount that the directors feel justified in reinvesting in the business; second, the confidence they have in the accounting methods by which the net earnings are computed and in the sufficiency of the special funds set aside before determining the net stockholders' surplus; and last, the strength of the feeling that a dividend rate once commenced should be adhered to, a policy which necessitates that reserves should be set aside in good years to be used to make up the dividend deficits of bad years. In practice, unfortunately, corporation officials do not separate the three motives, preferring to follow a kind of crude "horse sense," or a simple rule-of-thumb, such as a dollar for dividends to a dollar "put back." However, in order to bring out the fundamental principles involved it will be convenient to separate the three factors just enumerated.

Reinvestment of Surplus in the Business.—The proportion of money that the directors deem it wise to retain in the business depends on the nature of the business and the relative ease with which money for contemplated improvements may be secured from outside sources. Underlying these two considerations is the deeper question of business policy as to whether or not more money may be wisely invested in the business; but a consideration of this is reserved to the chapters covering business expansion. For the present we will consider the question of the relative volume of money required in order to carry on the business. This question concerns the conditions of the money market, and their relation to the particular industry in which the business operates.

A noteworthy and, from the economic point of view, a very significant difference between various kinds of business lies in the rapidity with which the capital is turned over. There are three points of view from which this phenomenon may be analyzed. One is the length of credit required to safeguard invested capital, another is the sensitivity to changes in industrial conditions, and a third is the relative quantity of fixed capital necessary to meet the requirements of an increasing volume of business. This last is of moment in this question of dividend policy. A remarkable contrast between the great industrial combinations and the combinations in the railroad and public utility fields lies in the fact that a large proportion of the former have issued no new securities since they were promoted. Indeed, instead of seeking new capital for improvements and extension they have, in very many cases, gradually absorbed the excess of capitalization that characterized their promotions through the steady, almost unnoticed, reinvestment of earnings in improvements to their plants.[4] Each has been, for its capital requirements, sufficient unto itself. The expansion of the large railroad systems and public utility enterprises presents a striking contrast. As their gross business has increased, plants have expanded many fold. A slight increase in their gross income requires a vastly greater increase in their investment in permanent property. And this increase in fixed capital is all out of proportion to the net earnings likely to arise immediately from the enlarged property and the increased business.

The difference is very conspicuous if one compares, specifically, businesses at opposite ends of the series—as for illustration, the shoe manufacturing business and the hydro-electric power business. In the former case the machinery is leased from the United Shoe Machinery Company—thus involving little capital investment. Even the building or "shell" may be rented. As a result the shoe manufacturer may plan to turn his capital at least once in two months—six times a year. In case a considerable proportion of the capital required in the business is furnished by banks and merchandise creditors, the rate of turnover of the proprietor's own capital may be even greater. A large hydro-electric power dam, costing $10,000,000, is likely to earn about $1,000,000 gross a year—often even less. It "turns" its capital once in ten years. The ratio of rapidity of turning capital in these two industries is thus at least 60 to 1.

---

[4] For statistics on the reinvestment of earnings by industrial companies, see Bliss, J. H., Financial and Operating Ratios in Management (1923).

This difference in the ratio between invested capital and the volume of business should have a marked effect on the dividend policy. If, as with established industrials, little new capital is required for an expanding business, a large proportion of the stockholders' surplus may be distributed as dividends. But if, on the other hand, considerable amounts of new capital are required for the ordinary course of the business, a small proportion of the stockholders' surplus should be distributed and a large proportion reinvested in the business.

Another consideration that may affect the judgment of directors in regard to the amount of the stockholders' surplus that should be put back into the corporation is the ease with which outside capital may be secured for improvements. This is a matter of great seriousness at times. During the late summer and early autumn of 1914 when the hostilities of the European nations were the predominating element in all problems of finance, when the exchanges all over the world were closed and when money in large sums could not be obtained by private corporations at any reasonable price, many companies with insufficient money in their treasuries to meet their usual requirements passed their dividends in order to create a kind of reserve fund in case their plans for new construction should be interfered with by the stringency of the money market. This policy was adopted by many public utility corporations which had undertaken large extensions of plant without the full amount of capital in hand. Such a policy was unquestionably wise in view of the disturbed conditions of the world's markets, but might be criticized by the stockholders who could easily persuade themselves that the war would be of short duration and that, therefore, the stockholders could claim the full payment of dividends as a matter both of right and expediency.

It should be noted in passing that the more serious question of the general expediency of putting more money into the business—a question which underlies all others in the matter of the reinvestment of the stockholders' surplus—is not touched upon here. That is the question of business expansion, to a discussion of which a later section of this study is entirely devoted. Here it is merely observed that the two considerations just mentioned—the rapidity with which the capital is turned and the condition of the money market—may influence the minds of directors in determining their dividend policy, irrespective of their general policy regarding the expansion of their business.

2

Confidence in Accounting Methods.—The second determining factor of dividend policy, that of lack of confidence in the accounting methods of the corporation, is always in the background of the minds of corporation directors. As suggested several times before, accounting methods are efforts to state precisely—or rather with that degree of precision figures make possible—a set of varying, and in many cases intangible, economic values. So long as these estimates serve only as checks to actual conditions, errors in them are not vital. But should they mislead the judgment in distributing as net profit what was, in truth, capital, the consequences to the solvency of the corporation would be serious. To prevent such an overestimation of earnings it was insisted in the preceding chapter that reserves for various unknown contingencies should be set aside. But the vast majority of corporation officials will not insist on any such sophisticated precision regarding reserves for unknown events. They will prefer merely to keep some of the earnings in the business, so that if "something comes up" the corporation shall have a bulwark to fall back upon. Or, putting the matter more baldly, most corporation officials will not insist that special "earmarked" reserves be set aside for various unknown possible losses; but they will insist that they be given the unrestricted power to determine the amount of earnings to be kept within their control as a general reserve fund to meet the future vicissitudes of trade and public demands—vicissitudes which they only vaguely, but nevertheless consciously, recognize.

Furthermore, in addition to any possible losses which accountant and director alike might anticipate, it frequently happens that there are contingent events which no system of accounting, unless omniscient, could protect the corporation against. In the year ending December 31, 1913, the express companies were putting into effect the new and radically lower system of rates established by the Interstate Commerce Commission. No one could tell whether the cheaper rates would so affect the use of the express service that the receipts under the new schedules would increase or decrease the net revenue. At first there was a distinct dropping off of earnings. In the case of the Wells Fargo Company, the total earnings during the year ending June 30, 1914, were clearly less than the previous dividend rate. The dividend was reduced from 10 to 6 per cent annually [g] although the company's total earnings at the end of the year amounted to something over 9 per cent.

Again, even the most accurate computations of necessary reserves must be fortified by an additional margin, in those businesses of an extra hazardous character which rest on the maintenance of an ample reserve under all circumstances. An insurance company must maintain not only its legal reserve, as determined by experience tables, but in addition a kind of reserve of reserves which can be used whenever the losses of the company exceed those defined by the experience tables. This is particularly true in the case of fire and marine companies, because their unusual losses are more exaggerated than those of life companies. On this principle no insurance company should distribute dividends to stockholders until it has created a considerable surplus above its legal reserve.[h] Such a course will, in the end, be more profitable to the stockholders, since the added strength of a large surplus will enhance the company's credit and, on the reputation of conservative management, increase its volume of business.

---

[g] The President of the company remarked in his report that the express companies were on trial, and that the safer policy to pursue was to reduce the dividends to well below the total earnings. The phrasing of this part of the report is worth considering. "Notwithstanding the net earnings from all sources for the year were nearly sufficient to pay the former rate of dividend, it was apparent that, for the time at least, the company's operations should be conservatively regarded as passing through a probationary period; and until the earning possibilities under the new conditions could be more fully demonstrated, the Board of Directors decided to reduce the dividend rate, which was fixed for the last half of the year at 3 per cent." Report, dated October 8, 1914.

Yet when all is said, the whole question of the proportion of profits to be retained in the business must rest with the judgment of the directors themselves. In the end, it is true, the "horse sense" of the average corporation director will prescribe a reserve to be "left in the business" which will approximate—and quite often exceed—the sum of the various reserves which the accountant would insist upon from his elaborate sophisticated guesses. It does not matter to the well-being of the corporation whether the proportion of earnings retained in the business to safeguard it against the vicissitudes of an unknown future is computed by the laborious and intricate calculations of the engineer and the accountant, guided by a "law" of averages, or is merely guessed at by shrewd men on the basis of a long and varied experience of business, provided only the amount held back be ample. And it is distinctly to the credit of the majority of American business men who reach high managerial positions, that their natural insight enriched by a wide experience is sufficient to protect the stockholders against their own avarice in demanding larger dividends than prudence justifies.

Regularity of Dividend Payments.—Far subtler is the third consideration determining the proportions of earnings retained and paid out—the requirement that dividends shall be constant and regular. It is subtler because it depends on the interpretation of business policy by large groups of stockholders and by the general public, who, by their approval or disapproval, can make or mar the general credit of the corporation.

---

[h] As stated above, this principle is more important for fire, accident, and marine than for life companies because of the inadequacy of experience tables and the difficulties to be overcome in scientific rating. Furthermore, the principle is more important in small than in large companies because of their difficulty in getting wide geographical distribution of risks.

The principle is itself a confession of the abiding uncertainties which undermine our confidence in the sufficiency of legal reserves. Insurance as a business is based on the application of the law of averages to risks, so that the risk of the business itself lies in the fallibility of the law of averages.

Underlying all other considerations in the general question of dividend regularity, is the fact that the net earnings of a business corporation are never regular. Some are more regular than others, but it is inherent in the nature of business enterprise that the net results of no two years shall be exactly alike. A regularity in dividend payments must therefore be superimposed on an irregularity of earnings.

The general subject of business fluctuations has been discussed to some extent in a previous section, dealing with the financial plan of various types of business. At that point great care was taken to indicate the extreme differences of policy underlying the financial plans of different types of corporations, because of the varying degrees of accuracy with which earnings could be predicted. This same question of the accuracy of predictions of earnings underlies all considerations of the regularity of dividends. At one extreme is a private water company, the earnings of which may probably be predicted within a very close margin of error. At the opposite extreme is a manufacturing concern making some specialty machinery, where earnings are subject to abrupt, violent, and unpredictable fluctuations. The specific solution of the problem, then, is inherent in the character of a business. For that reason it can be discussed only with reference to specific businesses, and this is the task of the succeeding chapter. But the general question as to the expediency ot making regular dividends is one which applies to all corporations.[i]

---

[i] A study was undertaken of the dividend records of various types and classes of corporations.[5] The period from 1906 to 1925, nineteen years, was a somewhat arbitrary unit but it covered the panic of 1907 and the war years. The study was confined to companies with a capitalization of $1,000,000 and more for local utilities—other than railroads—and $5,000,000

---

[5] Ade, C. F., A Comparative Analysis of Three Groups of Companies, Harvard Graduate School of Business Administration (1926).

Certain assumptions are essential to the proper relations between the directors and the stockholders of each and every corporation. There must be no direct or constructive deception in regard to the "regularity" of dividends. The directors must not give the stockholders good cause for assuming that a policy of regular dividends is to be followed, and then break the understanding at the first excuse.[j]

---

or more for industrials. In the former group there were 48 utilities divided as follows:

Companies engaged primarily in supply of:

Electric Light and Power	17
Gas alone or Gas and Electricity	15
Water	3
Street Railway	7
Telephone and Telegraph	6
	48

Among the industrials it was found that 53 corporations, with a capitalization exceeding $5,000,000, had paid dividends on the common stock continuously for a period of at least nineteen years. This list, unfortunately, could not be made to include many locally owned or family-owned industrials—like "Brown and Sharpe" of Providence, for example, in which the invested capital bears little relation to the amount of the capital stock or in which the dividends are not published.

[j] An example of such a foolish, if not deceitful, policy is offered by the history of the dividend policy of the directors of the United States Rubber Company toward the common shareholders. The company was organized in 1892 as one of the inflated promotions of Charles R. Flint.[6] The common stock was not then, nor has it ever been, based on substantial value, and was held only as a speculation. The earnings of the company were very irregular and the early history was characterized by manipulation and wide fluctuations of the market price of the company's securities. The first dividend was declared in 1897, when 2 per cent was paid, and as much again in 1899 and 1900. In 1901, nothing was paid on the common stock and the dividend on the preferred was reduced abruptly from 8 to 1 per cent. There had been a sudden falling off of earnings, and just prior to the time this fact was known there was every indication to point to extensive sale of the company's securities by certain of the directors. Nothing further was paid on the common stock until 1911, when 1 per cent was paid. At that time the company was borrowing extensively for working capital. It was announced at the time that the initial dividend was the beginning of a policy of regular quarterly dividends of 1 per cent. These dividends were regularly paid during 1912. In 1912, too, the directors declared a 20 per cent stock dividend on the common stock, and in 1913 placed the stock on a 6 per cent basis by initiating quarterly disbursements of 1½ per cent.

In the autumn of 1914, all rubber companies were feeling the bad effects of the dislocation in the world's business, and the majority of them reduced their dividends to protect their cash reserves. In the early spring of 1915, rumors based on "inside information" were in constant circulation, and on the basis of the continued maintenance of its dividend and on the

---

[6] Account of Promotion, 13 Ind. Com. Rep. 33-50 (1901).

Importance of Dividend Regularity.—The regularity of dividend payments helps the corporation in two very important respects. It creates a loyal group of stockholders who hold their stock for investment and not for speculation. It also creates a strong credit to be utilized for borrowing in the open market. In the former respect the value of a record of regular dividends can hardly be overestimated. The common stocks of the Delaware, Lackawanna and Western, the Pennsylvania, and the Chicago and Northwestern, among railroads; the Western Union Telegraph, the Pullman, the United Gas Improvement, among large public utility companies, enjoy a confidence from the conservative investing class due primarily to this cause.[k]

Besides strengthening the investment position of the company's stocks, few facts help the sale of its bonds more than the statement that it has paid regular dividends of 4 or 5 or 6 per cent for the last ten or twenty or thirty years. A

---

substantial prosperity of the company, the common stock rose to 74¾ in April, 1915.

In June there was great activity in the company's shares, and the price of common stock declined $30 a share on the rumor of a dividend reduction. This was emphatically denied by the "insiders." The president commenting on the continuation of the 6 per cent rate said:

"The dividend earned, and the finances being in easy condition, with $8,000,000 cash on hand, I think the action of the board is not only conservative, but one that is entitled to commendation in these times of war and financial stress. The division of $1,700,000 at this time among the 15,000 stockholders of the company, will, I am satisfied, do much good, and be most thankfully received." (*Boston Post,* July 2, 1915.)

This announcement was made in the morning of July 2 and the Stock Exchange quotations of the common stock rose rapidly in consequence. In fact the recorded price was $5.50 a share above the low point.

In the afternoon of July 2, after the close of the Stock Exchange, the directors announced that they had not merely reduced the dividend but passed it altogether. Apparently the eleemosynary motives of the president did not prevail.

The following morning the price declined $8 a share on the first sale. It was an open secret in the financial districts that some of the directors had been selling the stock during the preceding days on the basis of their exclusive information. Editorials in all the better class of financial papers condemned the conduct of the directors from every point of view, and an investigation by a New York Stock Exchange committee was suggested.[7]

Obviously such a policy ruins the credit of the company among investors, and very materially, through lack of confidence in the integrity and honor of the directors, hurts the market for all the company's securities.

[k] (This footnote appears on the following page.)

---

[7] For a clear statement of the case and the issues involved see 6 Annalist 5 (July 5, 1915).

dividend record showing large disbursements during years of prosperity and "passed" dividends during the depressions, stamps the stock as speculative,[1] and investors tend to asso-

---

k

	Consecutive Years of Dividends to Jan. 1, 1925	Average Rate for Entire Period	Average Market Price for Stock for 5 Years 1920 to 1925 (Per Share)	Average Income from Cash Dividend During This 5-Year Period	Capitalization Millions Dec. 31, 1924
RAILROADS:					
Pennsylvania	69	6.2%	42	6.43%	1126
Illinois Central	65	6.8	101.2	6.91	455
New York Central	55	5.9	88	6.48	1082
Chicago & Northwestern	47	6.1	69.6	7.04	168
Del., Lackawanna & Western	45	13.5	152.2	4.79	95
Chicago, Burlington & Quincy	44	7.4	(No Reliable	Market)	383
Delaware & Hudson Co.	44	7.5	109.2	8.23	117
Great Northern (Preferred)	34	6.3	72.2	8.10	568
Union Pacific	25	8.4	131	7.63	738
Atchison, Topeka & Santa Fé	24	5.5	95.4	6.30	633
Norfolk & Western	21	6.3	106	8.11	276
Reading Company System	20	6.7	75.8	5.28	250
Southern Pacific	19	5.8	92	6.53	1456
OTHER PUBLIC UTILITIES:					
Consumers Gas Co. of Toronto	51	9.95%	128.6	7.78%	12
Pullman Co.	48	8.4	117.6	6.80	135
American Express Co.	43	7.3	123.2	5.44	18
Cincinnati and Suburban Bell Telephone Co.	41	7.5	69	5.80	15
New England Tel. & Tel. Co.	39	5.8	107.2	7.30	130
Western Union Telegraph Co.	37	5.6	99.6	8.04	148
United Gas Improvement Co.	37	7.7	47.4	6.12	67
Consolidated Gas Co. (N. Y.)	32	7.2	72.6	8.41	243
Union Street Railway (New Bedford, Mass.)	29	7.7	115	6.95	3
American Tel. & Tel. Co.	25	8.1	115.4	7.60	119
Washington Water Power Co.	25	6.3	97	7.70	32
United Illuminating Co. (New Haven, Conn.)	25	8.9	194.8	5.13	10
Edison Electric Illuminating Co. of Boston	25	11.1	160.2	7.49	76
Philadelphia Co.	23	6.1	40.2	6.72	197
Massachusetts Gas Co.	19	4.7	77.4	7.38	63
INDUSTRIALS:					
Scoville Manufacturing Co.	75	13%	266.8	7.46%	18
Plymouth Cordage Co.	67	8.4*	(No Reliable	Market)	8
Pennsylvania Salt Co.	62	11.6	77.4	6.60	8
Westinghouse Air Brake Co.	50	28	98.2	5.31	40
The Consolidation Coal Co.	41	4.1	80.4	7.46	80
Pacific Mills	41	11.7	141.6	7.50	40
Butler Brothers	38	10.5	37	2.16	23
Swift & Co.	37	7.4	105.4	7.59	225
Diamond Match Co.	36	9.6	113.8	7.03	17
Proctor and Gamble Co.	34	16.2	116.6	3.43	36
Mergenthaler Linotype Co.	30	13.8	146.8	6.82	13
General Electric Co.	26	7.8	175.4	4.56	270
National Biscuit Co.	26	5.7	105.6	4.50	76
United Fruit Co.	26	8.3	173.2	5.30	100
Pittsburgh Plate Glass Co.	26	7.7	171.8	6.98	49

* Average rate since 1901.

[1] For illustration, contrast the dividend record of an "investment" stock, such as those records summarized in the preceding note, with a highly speculative stock—even a preferred stock—such as that of the United States Cast Iron Pipe Company. The following is its preferred stock dividend record: 1899 company organized; 1899, 1¾ per cent; 1900, 3½ per cent;

ciate the stock and the bonds together in one category.[m] Few instances show this more clearly than the case of the American Can Company, the stocks of which had deservedly acquired the reputation of being a mere gamble. When the bankers sought to sell an issue of bonds of the company to the investing public, they found themselves confronted by the evil reputation of the company. Its abrupt fluctuations in earnings, reflecting themselves in an uneven dividend rate, coupled with certain notorious stock market manipulations, had so impressed themselves on the public that no careful investor cared to associate his money with the enterprise, no matter how great the apparent security of the bonds.

The Question of Predicting Earnings.—Granting, then, the expediency of paying regular dividends rather than varying the disbursements according to the fluctuations in net earnings, the question arises how this may be best accomplished in prac-

---

1901, 0; 1902, 4 per cent; 1903, 4 per cent; 1904, 4½ per cent; 1905, 8 per cent; 1906, 7 per cent; 1907, 7 per cent; 1908, 3½ per cent; 1909, 5¼ per cent; 1910, 4¾ per cent; 1911, 2½ per cent; 1912, 2 per cent; 1913, 4 per cent; 1914, 2 per cent; 1915, 0; 1916, 2 per cent; 1917, 5¼ per cent; 1918, 5 per cent.

[m] For example, in the case of the United States Rubber Company. During the year 1914, the net earnings were reported to be over $12,000,000. The primary security was the collateral trust 6 per cent bond, due in 1918. At first glance this appeared to be an industrial bond of unquestioned security, with interest charges earned ten times over. Yet it sold continuously on a 5½ to 6 per cent basis, a much higher yield than other quick-maturing industrial bonds of equal apparent security. The 8 per cent dividends on the first preferred stock were earned nearly twice over, and the stock sold so as to yield the investor from 7¼ to 7⅞ per cent. In contrast, the United States Steel Corporation earned its bond interest hardly twice over, yet the corresponding premier security was selling to yield the investor less than 5 per cent. The corporation failed by nearly $2,000,000 to earn the dividend on the preferred stock, yet the stock sold throughout the year so as to yield the investor from 6⅕ to 6⅘ per cent. The primary reason for this anomaly was that the management of the United States Steel Corporation had the reputation of being open and straightforward with its stockholders.

The unsuccessful sale of the American Can Company's debenture bonds in 1913 (Book III, Chapter II, note [c]) and the unfortunate results of the United States Rubber Company's bond syndicate of 1916 attest with unmistakable clearness that a corporation with an evil reputation among investors cannot sell its bonds successfully, notwithstanding their apparent security. This has been referred to several times before. It cannot be repeated too often as it is one of the unmistakable principles of corporate financial policy.

tice. A detailed discussion of the practical questions involved is left for the succeeding chapter; but, in principle, it is clear that reserves, or undistributed profits, must be set aside in good years to be drawn upon in poor years. The acceptance of the general policy that dividend disbursements should be regular requires that the directors determine upon a regular rate, so far below the average net earnings that the undistributed profits shall be added to more frequently than drawn from.

Once the dividend has been fixed and designated as a "regular" dividend, care should be taken that it be fully maintained under all ordinary circumstances. For this reason the management should use care that a proportion of the bookkeeping surplus set aside during years of liberal net profit should be invested in quick assets easily converted into money for the payment of dividends during years of depression. The American Shipbuilding Company failed to observe this cardinal principle, and felt compelled to pass its preferred dividend the first year of depression in spite of the fact that there had been accumulated a bookkeeping surplus almost equal to the par value of the preferred stock. It had been entirely sunk in long-term—many of them unproductive—improvements and lost to the stockholders. The directors faced this unpleasant fact and courageously effaced from their books over $3,500,000 of bookkeeping surplus—over half the apparent surplus.[n]

---

[n] The American Shipbuilding Company, organized in 1899, paid its dividend regularly on the $7,900,000 of its 7 per cent preferred stock from its incorporation to the spring of 1914, and meanwhile accumulated a bookkeeping surplus of $6,561,367. The dividend of April, 1914, was passed, notwithstanding the large apparent surplus. The following table shows the remarkable fluctuations in earning capacity (fiscal year ending June 30):

	1912	1913	1914	1915
Net Earnings	$802,528	$849,874	$712,062	$175,770
Depreciation and Maintenance Reserve	221,828	243,400	432,757	170,365
Preferred Stock Dividends	(7%) 553,000	(7%) 553,000	(3½%) 276,500	....
Common Stock Dividends	....	....	....	....
Surplus, after Adjustments	6,507,892	6,561,367	5,441,235	2,971,234

	1916	1917	1918
Net Earnings	$1,267,585	$4,501,956	$9,191,386
Depreciation and Maintenance Reserve	688,278	1,353,916	2,565,120
Preferred Stock Dividends	(3½%) 276,500	(10½%) 829,500	(7%) 553,000
Common Stock Dividends	....	(7%) 532,000	(16¾%) 1,273,000
Surplus, after Adjustments	3,361,024	5,147,564	9,947,829

From such concrete illustrations, or from the mere statement of the principle that regularity of dividends should be maintained on the basis of an average of net earnings, it is apparent that the most difficult specific problem is the prediction of earnings. This is quite as difficult for an old-established business as for a comparatively new business. Investors in old-established New England public utilities have realized this during the last decade. At several points the problem has been approached from varying angles, and its importance cannot fail to be fully realized. In the preceding section, Book II, dealing specifically with new enterprises, various principles were suggested that enabled promoter, banker, and investor to make intelligent guesses concerning the future earnings of new enterprises. But in the case of old-established companies, having their own experience to guide them, there are ample data available to make the dividend policy of a corporation, based on future earnings, something more than a mere intelligent guess.[8]

Common Presumptions not Always Reliable.—Common presumptions and "street proverbs" regarding the regularity or irregularity of corporate earnings cannot always withstand critical analysis. It has always been assumed, for example, that public utility earnings are more regular than the earnings of industrial enterprises. This is undoubtedly true under ordinary circumstances, but it is also undoubtedly true that the earnings, both gross and net, of many utilities underwent more abrupt fluctuations during the Great War than the earnings of many industrials. The latter could raise their selling prices as their costs advanced, whereas the utilities, dependent on the slow routine of public commissions, found themselves ground between fixed rates and rising costs. For many years it was assumed that the earnings of our western railroads fluctuated directly with the agricultural prosperity of the regions they served. During the period of railroad building—even down to the panic of 1893—this was true, but increasing diversity of traffic and increasing density of population has made these "granger" roads more dependent on general economic conditions than on the yield of a single crop or even group of crops.[o]

---

[8] Discussions of prediction of earning capacity of promotion projects are to be found in Book II, Chapters III and IV.

Earning capacity of local public utilities, pages 323 to 338. Observe also note (j), Chapter V, of this Book.

Further extended discussion of the relation of earnings of industrial plants, before and after consolidation, will be found in Book IV, Chapter III, and particularly in the Appendix to the Book.

Note also the discussion of the effect of depressions on different types of businesses in the next succeeding pages.

Factors to Be Considered.—To stabilize the dividend payments of a corporation the directors must distinguish between two types of businesses, the type with more or less uniform earnings and the type with abruptly fluctuating earnings. In general it will be observed that the business supplying a commodity which is sold directly to and immediately used by the ultimate consumer, has a more stable earning capacity than a business which produces goods to be used by other businesses in

---

[o] An attempt was made by L. B. Anderson in a graduation thesis submitted in 1916 to the Harvard Graduate School of Business Administration to prove, statistically, the long-acknowledged presumption that the earnings of the Atchison, Topeka and Santa Fé Railroad were directly dependent on the Kansas grain crops, particularly wheat. Instead of proving the contention one is forced to acknowledge that just the opposite conclusion must be drawn from the data available. This is obvious from a few figures.

	Crops of Kansas (Millions of Bushels) Year Ending December 31				Railway Earnings Year Ending the Succeeding June 30		
Year	Wheat	Corn	Oats	Wheat Yield per Acre (Bus.)	Percentage Agricultural Products to Total Tonnage (Gross Tons)	Freight Density (in Thousands)	Gross Earning per Miles
1906	93.2	187.0	26.5	14.4	24	....	....
1907	74.0	145.2	14.1	10.2	24	....	....
1908	76.8	150.6	16.7	11.0	25	639	$9,624
1909	80.4	147.0	25.5	12.5	22	707	10,588
1910	61.0	152.8	53.9	12.5	24	675	10,393
1911	50.8	105.0	32.0	10.9	23	656	10,139
1912	88.8	156.4	42.2	14.2	21	726	10,874
1913	72.4	18.4	28.1	11.9	20	671	10,186
1914	180.9	87.3	45.3	20.0	26	743	11,893

That the conditions in the Kansas wheat industry have some influence on the earnings of the Atchison road is obvious from these figures. Yet to connect the total earnings of the road and its prosperity—as often has been alleged—with Kansas wheat is certainly a far-fetched deduction. These figures indicate, moreover, how relatively constant the earnings of a great railway system are now, even when the road is not conspicuous for the diversity of its traffic.

the production of something else. For example, a business which produces matches and sells them to the public is of the first type. Its goods are sold directly to the consuming public. They are immediately used up. No consumer acquires more than a limited supply of matches, and they are a negligible item in his total expenditures. The consumer does not, therefore, buy matches liberally in times of business activity when he "feels rich," nor does he curtail his purchases of matches during a business depression. The sales, therefore, of a match factory are independent of business depressions. True, like all manufacturing businesses, the earnings will fluctuate in accordance with variations in the skill of management and the ordinary hazards of any business enterprise. This is admitted. But if there is a relative uniformity in the skill of management, the gross sales of matches and the resulting net profit should be relatively constant.

The business of manufacturing locomotives, on the other hand, meets just the opposite conditions. A locomotive is not used up. It is not sold to the ultimate consumer, for the ultimate consumer is not the railroad, but the railroad's patron. The locomotive is merely, in itself, an instrument of production. Unless there is freight to be moved, it is valueless. Railroads will use their old locomotives during periods when there is reduced freight movement; they will rush into the market to purchase locomotives as soon as an industrial boom increases their volume of freight receipts beyond the wonted capacity. In consequence the manufacturer of locomotives will make few sales during the period of business depression and the earnings of his business will be small, no matter how much skill of management he may exercise. And, conversely, the sales of locomotives during periods of great business activity will be very large, and the earnings will be exorbitant, irrespective, almost, of the business skill of the manufacturer.[p]

---

[p] The theory of economics distinguishes between the two kinds of commodities represented by these two types of businesses. The kind of commodity sold to and directly consumed by the ultimate consumer, like matches, is called "consumers' goods." Matches, writing paper, breakfast

This difference in the relative constancy and variability in the earnings of the two types of corporations is further intensified by differences in price of the commodities sold. The lower the cost, the more stable the earnings; the higher the cost, the greater the fluctuations in earnings. Although both matches and overcoats are sold directly to and immediately used by the ultimate consumer, the former will be bought in essentially the same amounts in good times and in bad times; a new overcoat will be bought in times of business prosperity more often than during periods of depression. When a man "feels poor" he will buy the same number of matches, but he will have his old overcoat freshened up for winter. And the same principle holds true for goods of the second type sold to other manufacturers. A railroad will hesitate much longer before purchasing a new locomotive than a new wrench for the repair shop. The former purchase will be made only if the prospective traffic warrants the expenditure, the latter will be made soon after the old wrench wears out, without much reference to general business conditions.

Again this principle is further modified by the relative importance of the commodities manufactured and sold. Notwithstanding matches and sealing wax are both low-cost commodities sold to and directly consumed by the ultimate consumer, they are not equally necessary; notwithstanding locomotives and automatic lathes are high-priced commodities sold to railroads to be used in producing transportation service, they are not equally necessary. And obviously, no matter what the price or the manner of use, the things that are necessary will invariably promise a more regular market than

---

foods, beef, farm products, and the host of things which all of us buy to use in our daily living, are consumers' goods. On the other hand, the kind of commodity sold to a manufacturer or public utility corporation for use in the production of something else, like locomotives, is called "producers' goods." To this category belong machinery of every description and equipment for manufacturing and public utility corporations. The principle, here described, would take the following form: the earnings of businesses engaged in the production of consumers' goods are less subject to fluctuations due to business booms and depressions than the earnings of businesses engaged in the production of producers' goods.

will any other kind of commodity. At the opposite end of the scale are the foibles of fancy and those things designed to satisfy restricted or eccentric tastes; and in the middle ranges are to be classed the great multitude of manufactured goods, which add, with varying degrees of importance, to the efficiency of labor, or to the safety, comfort, and distinction of the consumer's life.

The General Principle.—From these observations it will be possible to formulate a general principle. *Earnings of corporations engaged in the production of inexpensive necessities, sold to and immediately consumed by the ultimate consumer, are most regular and most subject to reliable prediction; earnings of corporations engaged in the production of costly commodities, sold to other producers and not absolutely necessary for the operation of their businesses, are least regular and least subject to reliable prediction.* These are the extreme cases. Between these extremes lie the majority of corporate businesses, and the relative predictability of their earnings will be determined according as they tend toward one extreme or the other.

And this principle has ample justification in experience.[q] It is empirically illustrated by the two commodities already cited —matches and locomotives. For the purposes of illustration it is fortunate that these two commodities are manufactured by large corporations whose earnings are matters of public record. The following represent the gross and net earnings of the Diamond Match Company during a period of 16 years, down to 1916.[r] Unfortunately the gross volume of business is not published.

In the whole history of American industrial consolidations, it is probably impossible to find the earnings of a single large business as constant, uniform, and "smooth" as those represented by this table. The company was doing millions of

---

[q] This is particularly true of the fluctuation in gross and net earnings of the equipment companies.

[r] The earnings after 1916, for the remainder of the period of the Great War, were considerably affected by speculative transactions in timber, not directly connected with the match business.

NET EARNINGS OF DIAMOND MATCH COMPANY

	Net Earnings	Deviation of Annual Net Earnings from the Mean Average for the Period ($1,907,948)
1900	$2,014,839	+$106,891
1901	2,021,072	+ 113,124
1902	1,957,674	+ 49,726
1903	1,824,089	− 83,859
1904	1,653,369	− 254,579
1905	1,772,280*	− 135,668
1906	1,993,770	+ 85,822
1907	2,296,076	+ 388,128
1908	1,894,724	− 13,224
1909	1,719,782	+ 88,166
1910	1,850,482	− 57,466
1911	2,024,013	+ 116,065
1912	2,120,103	+ 212,155
1913	1,775,816	− 132,132
1914	1,615,726*	− 292,222
1915	1,993,366†	+ 85,418

Average net earnings for 16 years	$1,907,948
Average deviation of annual net earnings from the mean average of the period	144,665
Maximum deviation	388,128
Percentage of maximum deviation to mean average	20.3%
Percentage of average deviation to mean average	7.1

---

* Does not include a deficit of $73,492 on a California lumber speculation.
† Not including fictitious reserve for higher cost inventories.

dollars of gross business. Yet in 1900 the net earnings were within less than a hundred thousand dollars of those of 1915. The depression years of 1903 and 1908 had very little effect on the net earnings and the "boom" period of 1905 to 1907 could hardly be detected from an inspection of these earnings. Even large public utilities, such as water companies, whose earnings are proverbially constant, can hardly show a record of regularity and stability equal to this.

In contrast to these figures are those of the American Locomotive Company, covering essentially the same period except that the last three years of the Great War are included. (The company was organized in 1901.)

The contrast of these figures with those of the Diamond Match Company is remarkable. Following the panic of 1907 the gross earnings of the locomotive company fell off nearly a half, from over $37,000,000 to $19,000,000; and the net

GROSS AND NET EARNINGS OF AMERICAN LOCOMOTIVE COMPANY

Year Ending June 30	Gross Earnings	Deviation of Annual Gross Earnings from the Mean Average for the Period ($40,285,800)	Expenses	Net	Deviation of Annual Net Earnings from the Mean Average for the Period ($5,055,240)
1902	$26,398,394	−$13,887,406	$23,291,217	$3,107,177	−$1,948,063
1903	33,105,725	− 7,180,075	28,052,315	5,053,410	− 1,830
1904	33,068,750	− 7,217,050	27,404,985	5,663,765	+ 608,525
1905	24,150,201	− 16,135,599	19,796,533	4,353,668	− 701,572
1906	42,547,876	+ 2,262,076	36,085,371	6,462,505	+ 1,407,265
1907	49,515,486	+ 9,229,686	42,744,381	6,771,105	+ 1,715,865
1908	37,484,417	− 2,801,383	32,497,627	4,986,790	− 68,450
1909	19,008,634	− 21,277,166	17,665,962	1,342,672	− 3,712,568
1910	32,203,392	− 8,082,408	29,605,443	2,597,949	− 2,457,291
1911	40,649,385	+ 363,585	36,526,515	4,122,870	− 932,370
1912	30,449,452	− 9,836,348	28,117,547	2,331,905	− 2,723,335
1913	54,868,175	+ 14,582,375	48,041,691	6,826,484	+ 1,771,244
1914	~~29~~,987,438	− 10,298,362	27,425,187	2,562,251	− 2,492,989
1915	9,303,296	− 30,982,504	10,445,900	− 1,142,602	− 6,197,842
1916	59,316,016	+ 19,030,216	48,245,582	11,070,434	+ 6,015,194
1917	82,213,845	+ 41,925,045	72,614,654	9,599,191	+ 4,543,951
1918	80,588,071	+ 40,302,271	70,358,566	10,229,505	+ 5,174,265

Average gross earnings for 17 years	$40,285,800
Average net earnings for 17 years	5,055,240
Average deviation of annual *gross* earnings from the mean average of the period	15,023,327
Average deviation of annual *net* earnings from the mean average of the period	2,498,330
Maximum deviation for gross earnings	41,925,045
Maximum deviation for net earnings	6,197,842
Percentage of maximum deviation to average gross earnings	104.1%
Percentage of maximum deviation to average net earnings	122.6
Percentage of average deviation to average gross earnings	37.5
Percentage of average deviation to average net earnings	50.0

earnings declined from $5,000,000 to $1,250,000. Even more conspicuous is the effect of the Great War. In 1915 the gross earnings were less than half of any year in the company's history and the year's business resulted in an actual operating deficit of over $1,100,000. The next year the gross business was $60,000,000—over six times as great—and the net earnings were over $11,000,000—an amount in excess of the total gross receipts of the previous year.

These comparative statistics covering the earnings of the Diamond Match Company and the American Locomotive Company are illuminating. In the former case the average deviation from the mean average for the entire period was only 7 per cent of this mean average for the net earnings. In the case of the Locomotive Company, on the other hand, the average deviation from the mean average was 50 per cent of this mean average. The variability of the net earnings of the locomotive company was seven times as great as that of the match company.

The extremes of variation, probably unprecedented in the history of the modern business corporation, are shown by the influence of the war on businesses engaged in the production of war materials.[s] But extreme variations of this character are so unaccountable, and therefore unpredictable, that such anomalies can have little influence on any theory of dividend regularity. They are interesting merely, as indicating the extreme limits of variability of earnings of industrial enterprises under the most extraordinary circumstances.

In the field of public utility corporations there are some remarkable contrasts. A private water company appears not affected in the least by an industrial boom or depression. People drink as much water and wash as often at one time as another. A gas company, operating in a suburban district, will actually show greater net earnings during a depression than during a period of pronounced business activity because, while its gross receipts remain relatively constant, it is forced to pay more for coal and oil at a time of great demand for these commodities than when general business is at a standstill and the demand for coal and oil is small. On the other hand, the earnings of an electric power company serving an industrial community and supplying current for factories will fluctuate directly with general business conditions. The predictability of the gross earnings of any public utility will, in general, depend on the relative number of domestic as compared with industrial customers; and the predictability of its net earnings will depend on the relative proportion of the total receipts that are absorbed by interest. This latter statement rests on the presumption that, in general, the larger the proportion of total expenses absorbed by interest on capital, the more

Gro

omestic & industrial

Net

ceipts & interest

---

[s] For example, the following figures represent in summary form the net earnings of the Bethlehem Steel Corporation, after reasonable allowances for repairs and maintenance, but before the setting aside of reserves for depreciation and extraordinary losses.

1905	$3,622,475.50	1912	$ 5,114,439.98
1906	2,011,368.34	1913	8,752,671.44
1907	2,642,178.07	1914	9,649,667.71
1908	2,196,172.04	1915	24,821,408.25
1909	2,993,536.31	1916	61,717,309.58
1910	4,524,141.30	1917	53,979,360.08
1911	4,792,713.53		

constant will be the net earnings. The experience of the vast majority of local public utilities during the period of the Great War bears out this general observation with remarkable precision.

These general principles, then, underlie any attempt to predict earnings and through the prediction of earnings to determine a regular rate of dividend disbursement. For in the end the regular dividend is a matter of arithmetical averages during a series of years. The extreme fluctuation in the net earnings of the American Locomotive Company in itself in nowise affects the policy of paying regular and dependable dividends. This company has paid the 7 per cent dividend on its preferred stock every year since it was organized in 1901. In two of the years, 1909 and 1915, the preferred stock dividend was not earned. It was paid nevertheless. And this course was eminently wise, because the reserves accumulated during years of large earnings were ample to safeguard the general credit of the company.

Extra Dividends.—If a conservative policy of regular dividends is followed, it is reasonable to expect that more money will accumulate in the undistributed profits account than the usages of the business require. Under such circumstances the directors may feel warranted in declaring an additional distribution in excess of the regular dividend. This should be called an "extra dividend" to indicate to the stockholders that the increase is not regarded by the directors as permanent. This matter of a name is very important, for the natural optimism and avarice of the average stockholder will lead him to regard the action of the directors as an implied promise to continue the higher dividend rate in the future. The practice is very common with mining companies of clearly specifying the increased dividend as an "extra" dividend if the unusual earnings have arisen from a fictitious rise in the price received by the mine for its metal. In all cases, however, it is of the utmost importance not to deceive either the present stock-

shoul
called.
"extra d

holders or those who might be induced to buy the stock on the basis of the increased dividends. Some corporations have gone so far as to have a separate check made out for the extra dividend, so that under no circumstances will the stockholder confuse the additional payment with the regular payment.

Especial care should be exercised by the directors that the "extra" dividend is not made the occasion of stock manipulation or misrepresentation. It frequently happens that speculators will use advance information of a probable extra dividend as the occasion for forcing the price of the stock to inordinate levels, in the expectation of unloading it on the credulous public as soon as the extra dividend is actually declared. This is one fact that explains the frequent rise in market price of a stock during the period immediately before the declaration of an extra dividend, and the equally abrupt fall as soon as the dividend has been actually declared.

dividend in the form of bon

Bond Dividends.—In the few cases in which it seems advisable to declare a dividend, although the money cannot be readily withdrawn from the business, it is customary to pay the dividend in some form of security. This may be either bonds, scrip, or stock.

A bond dividend is rarely used. Only in cases where it is clear that the corporation has ample permanent property and assured earning capacity to permit it to "mortgage the distant future," as it has been called, is it wise to declare bond dividends. Only one corporation of prominence, the Adams Express Company, has used this form of distribution. And in this case the security deposited as the basis of the bond issue consisted of a large fund of miscellaneous stocks and bonds of railroads and other corporations, the market value and earnings of which were independent of the business and earnings of the express company.[9] On the whole, however, in spite of the large equity behind the Adams Express Company's bonds, this plan was probably unwise, for it segregated the company's

Adams Express co

was unwise

---

[9] Further discussion of this bond issue, see Book I, Chapter V, page 131.

most valuable assets and made the decline in the company's stock more abrupt, when the express business itself felt the effects of the Interstate Commerce Commission's reduction in rates.

Bond dividends are, on the whole, objectionable for a number of reasons. If they are paid on one class of stock only when several classes of stock exist they are certainly burdening the corporation with direct liabilities and increased fixed charges without benefiting at least one class of stock. Moreover, they lend themselves easily to the presumption that the directors are seeking to give to the stockholders the impression that the corporation is sounder, financially, than it really is. For if the needs of the corporation to conserve its cash resources are sufficiently great to require it to withhold what the accounts indicate should be divided among the stockholders then its credit demands that its funded liabilities shall not be increased unless the corporation is itself benefited through the receipt of new money. It is interesting, too, to observe that public utility commissions have sometimes frowned upon the declaration of bond dividends by public utility corporations on the ground that a corporation ought not to incur a liability to divide its future assets without receiving some present or future benefit in return.[t]

Scrip Dividends.—Much more frequent than bond dividends are the dividends in notes—or scrip, as they are called. "A scrip dividend," as one writer aptly put it, "divides the profits but defers the actual distribution of the assets." [11] A plausible but not a thoroughly reasonable excuse for such divi-

---

[t] "By the declaration of a dividend payable in the future no part of the surplus has been transferred to the stockholders. The directors themselves have no more and no less power over it than was possessed by them before the declaration of the dividend. The making of such a dividend is not a loan by the stockholders to the company. . . . In its essential nature it is nothing but a promise to pay to the stockholders at a future time a sum of money, and for this promise it receives no consideration whatever." [10]

---

[10] Re Erie R. R. Co., 1 Pub. Ser. Com. 2nd Dist. N. Y. Rep. 115.

[11] Ignatius, M. B., The Financing of Public Service Corporations, 134 (1918).

dends is that of heavy construction. The accounting system may show clearly that the business has earned a liberal net profit, but at the same time appears to have a need for all the available money for developments or extensions. Although this is the ordinary excuse advanced for paying scrip dividends when no money is available, it is usually based on unsound premises and often on false accounting methods.[u] A more plausible excuse for the issue of scrip dividends than contemplated improvements is that, owing to general business uncertainty, the corporation prefers to hold the money in its treasury rather than to distribute it among its stockholders. In such cases there is no question of a mere bookkeeping profit, for the money is presumed to be actually in hand.[v]

There are, however, numerous cases, especially among public utility holding companies, in which this scrip dividend is a

---

[u] One of the well-known, early cases of the unwise use of scrip dividends is that of the Northern Pacific Railroad during the Villard mismanagement. Through his holding company, the Oregon and Transcontinental Company, Villard secured control of the old Northern Pacific in 1881. In order to obtain the support of certain stockholders, Villard had promised to declare a dividend on the old preferred stock. The road was then spending very large sums for construction and no money was available for dividends. Accordingly Villard announced that large amounts of the bookkeeping surplus accumulated between 1875 and 1882 had been expended on improvements. Then a dividend of 11 per cent was declared on the preferred stock, and paid in scrip or notes, bearing 6 per cent interest and payable in five years. The same year the company's expenditures for construction far exceeded its receipts from the sale of bonds, stock, and from its reinvested earnings. The scrip dividend amounted, in effect, to a mere increase in its liabilities without any corresponding or compensating advantages.[12]

[v] A good example of the wise use of the scrip dividend for the conservation of the cash reserves is afforded by an instance drawn from the history of the R. J. Reynolds Tobacco Company. During 1913 the company obtained a net profit of $2,862,567, or over 28 per cent, on the outstanding stock of $10,000,000. Yet during the year the company built three large new concrete plants and spent a large amount to install cigarette machinery. Altogether $600,000 was spent in new construction and the net current assets were increased over $2,500,000 in order to meet the demands of the business. Clearly the stockholders were entitled to a return on their holdings, yet the entire earnings had been turned back into the business. A cash dividend could be paid only through increased borrowings, which the management was unwilling to undertake. Instead they paid 3 per cent quarterly dividends in scrip, which bore 6 per cent interest to January 1, 1915, at which time it was to be paid off in cash, or funded into preferred stock at the option of the company.

---

[12] For details see Daggett, S., Railroad Reorganization, 273 (1908).

mere device for postponing the unpleasant confession that the company is without sufficient resources to pay any dividends at all.[w] By questionable methods of accounting which neglect adequate depreciation and other reserves, it may be made to appear that the business of the year has yielded a net profit. The management then points out that the demands on the business were such that the year's profit was absorbed by the heavy new construction, which increased the value of the property assets. On the basis of this apparent increase in the property account the management purports to feel justified in incurring a new liability in the form of the scrip dividend. The process may be repeated year after year, and as no real money is paid out in dividends, the actual operation of the company is not hampered. Ultimately the deceit will be discovered through the uncovering of the fictitious figures at which the property account is carried, but in the meantime the managers will have been able to maintain the stock at a market price higher than if no dividends whatever had been paid.

Stock Dividends.—Bond and scrip dividends are, in truth, merely special forms of a large generic type of dividends which, collectively, might be called security dividends. Of this class by far the commonest and most important are stock dividends.

---

[w] The Standard Gas and Electric Company of Delaware is a large holding company controlling securities of operating electric, gas, and traction companies in the south and west. Its income arises entirely from interest and dividend disbursements—mostly the latter—of its subsidiary companies. The dividend on the preferred stock is 8 per cent, cumulative, and was paid as such from September 15, 1911, to June 15, 1913. Meanwhile the subsidiary companies had been making large and, so far as the immediate conditions were concerned, frequently unwarranted expenditures for new construction; these must be financed by the sale of new securities or by the retention of earnings. The net earnings of the parent company fell off from $2,250,000 in 1912, to $1,500,000 in 1913, while the interest charges rose from $750,000 to $815,000. The payment of the full preferred stock dividend, however computed and however paid, involved a deficit. On September 15, 1913, when the seriousness of the conditions confronted the parent company, the preferred dividend was paid in interest-bearing scrip, thereby conserving the cash of the subsidiary companies. The dividends from September 15, 1913, to September 15, 1915, were paid in scrip. Subsequently, practically all this scrip was refunded into twenty-year 6 per cent gold notes—the unsecured debentures of the company. By strict economy and able management the company was able by 1918 so to improve its earnings and its credit that cash dividends were resumed.

D.
ed
ncipe

It would appear from recent discussion that stock dividends were of comparatively recent origin. This is not true. At the close of Elizabeth's reign[13] the queen granted an exclusive charter to the Governor and Merchants in London trading in the East Indies. The East India Company, as it came to be called, was at first only moderately successful but toward the end of the seventeenth century it enjoyed great prosperity. In 1676 the proprietors declared a stock dividend of 100 per cent. During the eighteenth century stock dividends were quite frequently declared by British companies. In the United States one of the early and frequently discussed stock dividends was that declared by the New York Central just prior to its union with the Hudson River Railroad in 1869.[14] It is correct, however, to assume that stock dividends have never been as frequent nor as generally used by all types of corporations as in the period since the opening of the Great War. Stock dividends have, moreover, become increasingly common since the Supreme Court decided in 1920 that such dividends were not subject to the Federal Income Tax at the time of issue.

.D. not
ject to
d. Income
ax

Stock dividends as a class owe their origin to financial success. Scrip dividends, quite generally, are substitutes for cash dividends and, therefore, an outward sign of at least temporary weakness. But this, except in rare cases, is not true of stock dividends, although a desire to effect a speculative and unjustifiable enhancement in market price is often the dominating motive in leading directors to declare stock dividends.[x] In other cases the wisdom of declaring stock

---

[x] Perhaps the most notorious case of deceit through the declaration of a stock dividend is that of the old National Cordage Company. The following account explains itself: "Sometime during the autumn of 1892, a prominent member of the New York Stock Exchange said to President Waterbury, 'Your stock is selling too high,' meaning that, for speculative purposes, it would be better to have the stock selling at $70 a share rather than $140, even though the capitalization had to be doubled. This was especially important as the Keene pool was about to be liquidated and a new pool formed. It was essential for the success of the second pool that the prices of the stock should be well maintained. Accordingly President Waterbury presented the idea to the Board of Directors, who decided to issue, in January, 1893, a 100 per cent stock dividend. The book value of

---

[13] December 31, 1599.

[14] Page 573, note (ee).

dividends is very much open to question, notwithstanding the fact that such dividends may be fully justified by the books of account of the corporation.

Two Principles of Controlling Stock Dividends.—In general we may lay down two guiding principles, one of accounting and the other of general business expediency, which should control the declaration of stock dividends. Both of these are important.

P
ab
pay

The first principle that should control the declaration of a stock dividend is that the actual net assets—after all reasonable deductions for depreciation and special reserves—shall be appreciably more than the outstanding stock. This means that neither the plant assets, nor the good-will account, nor any "revaluation" assets should be marked up in order to show an increase of value other than through the actual reinvestment of surplus earnings in the business. The bookkeeping procedure in connection with the declaration of a stock dividend should consist merely of a transfer from the surplus account—accumulated through annual profits—of an amount sufficient to cover the new issue of stock. If this principle is carefully observed, it follows that stock dividends should never be tolerated unless the actual earnings to a considerable amount are employed by the management to construct new buildings and equipment, or to increase the net quick assets in order to maintain or strengthen the general credit position of the company. Whether or not earnings shall be reinvested in property or paid out in dividends is merely a matter of business judgment. But that there must be actual earnings to do either

---

the subsidiary plants was marked up to correspond with the inflation of the capital assets. The common stock was increased from $10,000,000 to $20,000,000. At the time, the Directors stated that the new issue was to be given stockholders 'to represent about $11,000,000 of assets acquired by the Company since its formation, and which it is the policy of the Company to hold intact.' Simultaneously the Company stated it would be its policy 'at the end of the first fiscal quarter after the distribution of the new stock,' to declare dividends equivalent to 10 per cent on the preferred and 7 per cent on the new common stocks."[16]

---

[16] Dewing, A. S., The National Cordage Company, 23 (1913). Announcement see 56 Chron. 127 (Jan. 1893).

is fundamentally a matter of simple business honesty, to be expressed outwardly in the accounts. It is not a matter of judgment or expediency or anything of the kind, but of truth.

(2) edit
must
good

The other principle to be observed is that the stock dividend should not be declared, even when the invested profit and loss surplus is ample, if the credit position is not fundamentally sound. The declaration of a stock dividend implies that the stockholders' capital has been invested in the business, and that it would be unwise to withdraw this capital. It points to a marked discrepancy between the capital investments and the capital stock, a discrepancy which the directors propose to remedy by increasing the capital stock. But it implies also that the business is fundamentally sound, for were it not fundamentally sound, the stock dividend would degenerate into a mere bookkeeping artifice. The company should not, therefore, represent that it has capital to divide in the form of a stock dividend, if it seeks to secure at the same time more capital from outside sources. The mere bookkeeping surplus is not enough, for the soundness—the solvency, even—of the business demands that a balance between the fixed assets and the quick assets be fully maintained. Mere invested capital, mere plant assets, are not enough. In order to have a sufficient excuse for arbitrarily marking up the capital stock, the business must have maintained its strength through maintaining a proper equilibrium between its fixed capital and its working capital. And although a stock dividend may not deplete the quick assets, as a cash dividend does, it is an outward sign of an excess of capital in the business not in the least consistent with outside borrowings. If such borrowings are resorted to, the stock dividend is the sign of a strength which does not exist.

Avoiding Suggestions of Market Manipulation.—Furthermore, in addition to the principles enumerated above, great care should be taken to avoid the impression that the stock dividend is declared for the purpose of aiding the manipulation of the market price of the stock by those in control of the company.[y] A policy of declaring stock dividends is not pursued, oftentimes, with any intent to deceive, yet the utmost care should be taken by the management of a corporation not to allow such a policy to be used by investors and speculators as a pretense for bidding up the market price of the stock above its inherent value. Especially is this true when the directors of a corporation have acted in such a manner as to create a feeling that a stock dividend is to be expected at a regular time. In August, 1908, the United Fruit Company initiated a stock dividend of 10 per cent on its outstanding capital stock. This action was based on a large accumulation of property resulting from an investment of earnings. This accumulated surplus amounted to 55 per cent of the capital stock, and the declaration of a stock dividend was justified by the available assets. In November, 1909, the company declared another stock dividend of 10 per cent—also out of accumulated surplus. Again in November, 1910, it declared for the third consecutive time the 10 per cent stock dividend. In the winter of 1911, the stock rose to $200 on the presumption that the declaration of an annual stock dividend, occurring three successive times, had become a regularly established practice. Nor were the stockholders disappointed, for another stock dividend of 10 per cent was paid in December, 1911. As the autumn of 1912 approached the stockholders naturally expected a continuation of the policy and the stock advanced to $208.50 a share. The stockholders were disappointed, for instead of a stock dividend they were offered new stock at $150 a share. Had the directors of the company declared their stock dividend at irregular inter-

---

[y] For a notorious case, see preceding note. At the time of the fictitious stock dividend of the old National Cordage Company, referred to in the preceding note, *The Boston Herald* made the comment, "Since every dollar of the new $10,000,000 capital is now probably represented by outstanding securities, stocks and bonds, the new issue of stock partakes of the nature of liquid capital, commonly called water, all of which water the investing public is expected to acquire from the speculative pool and other shareholders under the delusion that present ability to pay dividends upon the enlarged capital constitutes it a substantial investment. How the investing public enjoys being deluded!"[16]

---

[16] *The Boston Herald*, January 28, 1893. Quoted in Dewing, A. S., The National Cordage Company, Supplement, 33 (1913).

vals and in irregular amounts they would not have been—as they were at the time—open to the accusation of using the presumption of the stockholders in favor of a regular annual stock dividend as a means for manipulating the market price of their stock.[z]

Differences of Practice.—INDUSTRIALS.—The substantial excuse, upon which rests the expediency of stock dividends,

---

[z] The financial history of the United Fruit Company, in the years during and immediately following its four successive stock dividends, presented a lesson in what one might call financial mismanagement resulting from too great prosperity. The following columns of figures state the case accurately.

SUMMARY STATEMENT OF UNITED FRUIT COMPANY

Year Ending	Capital Stock	Short-time Notes	Net Profits	Fixed Charges	Cash Dividends		Stock Dividends	
Aug. 31					%	Amount	%	Amount
1899...								
1900...	$11,230,000	$3,500,000	$1,813,811	$242,016	10	$1,119,257		
1901...	12,369,500	4,255,000	1,251,976	153,418	9	1,084,768		
Sept. 30								
1902...	12,369,500	4,012,500	2,446,517	260,700	8½	1,051,408		
1903...	12,575,500	3,944,000	2,077,749	229,595	7	877,150		
1904...	15,782,000	2,446,000	2,077,775	137,426	7	967,675		
1905...	17,485,000	2,219,000	1,617,721	Cr 15,085§	7	1,167,793		
1906...	17,961,000	1,670,000	3,900,887	114,354†	7	1,235,745		
1907...	18,525,000	2,656,000	6,289,909	99,982	7¾	1,419,350		
1908...	21,328,300	1,600,000	4,041,091	94,746	8	1,584,484	10	$1,940,000
1909...	21,340,000	5,690,000	4,388,649	220,771	8	1,707,042		
1910...	23,474,000	5,532,000	6,552,577	260,583	8	1,877,472	10	2,134,000
1911...	27,059,900	9,371,000	5,038,740	327,771	8	2,164,712	10	2,459,900
1912...	27,790,500	9,210,000	5,332,113	424,583	8	2,395,788	10	2,705,890
1913...	36,594,300	21,468,000	6,197,876	882,245	8	2,927,544		
1914...	36,594,300	33,306,000	3,742,247	1,477,336	10	3,659,430		

Certain facts are evident from these figures. In 1907, the year before the series of stock dividends was initiated, the funded notes represented only 7 per cent of the sum of the stock, notes, and accumulated surplus; while 67 per cent of the annual profits were left over after the payment of dividends and interest. In 1913, within a few months of the payment of the last of the series of annual stock dividends, the United Fruit Company was compelled to borrow $12,000,000 of working capital thereby doubling its note debt; and in the succeeding year this was increased again by the issue of approximately $12,000,000 more notes. So that in 1914 its note issues were twelvefold greater than in 1907. Further, in 1914, with a stock and note capital of $70,000,000 the company earned in net profit only a little over half what it had earned in 1907 with a stock and note capital of only $21,000,000. In 1914 the fixed charges on the funded notes absorbed 42 per cent—six times as much as in 1907—of the annual profits; while there was a deficit of over $2,000,000 left after depreciation, fixed charges and cash dividends.

This case is chosen merely as an example of the predicament a company can get into by following what might be called a "regular" stock dividend policy. It should be added, in justice to the management of this company, that since the period covered by this illustration the company has not only enjoyed large earnings but wisdom and conservatism has been shown in its cash and stock dividend policy.

is the necessity or the wisdom of investing a large proportion of earnings in the business when justice, or even the enlightened self-interest of the stockholders requires that the earnings be distributed among them. The stockholders of a business are entitled to its profits. Without this hope of profit they would not have invested their capital. Apparently there is a marked difference among even successful corporations in declaring stock dividends. Some avoid the policy altogether, even though a very large proportion of the earnings was invested in new plants and equipment.[aa] Others, on the contrary, pursue a liberal policy, and in many cases a too liberal policy, in declaring stock dividends, so that, through a period of years, the returns to stockholders from stock dividends often approximate that received from cash dividends.

Taking a random selection of 31 industrial corporations that declared stock dividends in the ten-year period from 1908-18, the average annual return from the cash dividends from these corporations under review was 9.5 per cent while that from the stock dividends, taking the stock at its par value, was 5.4 per cent. In 9, or nearly a third of the cases, the average annual return from the stock dividends exceeded the average annual cash dividends during the period.[bb]

[aa] This policy was followed consistently by the Standard Oil Company of New Jersey down to its dissolution. At the very beginning the Standard Oil consolidation was undercapitalized, and throughout its history the directors followed the policy of reinvesting a very large proportion of the surplus earnings in the equipment and working capital necessitated by their growing business. Nevertheless, no stock dividends were declared until after the dissolution of the consolidation following a federal court decree.

[bb] INDUSTRIAL CORPORATIONS, PERIOD 1908-1918

Name ("Company" omitted)	Total Cash Dividends (per cent per share)	Average Cash Dividends (per cent per share)	Stock Dividends (per cent)	Average per Year
American Radiator	122.50%	12.50%	70.00%	7.00%
American Zinc, Lead and Smelting	13.00	1.30	50.00	5.00
Barrett	72.00	7.20	12.00	1.20
Bethlehem Steel	57.00	5.70	20.00	2.00
Bush Terminal	38.00	3.80	17.50	1.75
Colt's Patent Firearms Mfg	203.00	20.30	100.00	10.00
Consolidation Coal	62.00	6.20	70.00	7.00
Cuban American Sugar	130.50	13.00	40.00	4.00
Cudahy Packing	15.75	1.60	50.00	5.00
General Chemical	105.50	10.50	30.00	3.00
General Electric	80.00	8.00	34.00	3.40
Goodyear Tire and Rubber	120.00	12.00	13.00	1.30

RAILROADS.—Stock dividends have, on the whole, been declared very rarely among railroads. The policy would be tolerated only by very successful railroads and these, with the exception of the Delaware, Lackawanna and Western Railroad,[cc] have not declared stock dividends of recent years. Once in a while a subsidiary railroad corporation will declare a stock dividend to its parent, presumably for the purpose of adjusting inter-company accounts,[dd] but these cases are not significant. In several rather notable instances a stock dividend has been used as a means of inflating the stock of a railroad, prior to leasing it to a larger railroad. In this way the rental, a percentage of the outstanding capital stock, is conspicuously increased. A notable, if not notorious case of such an inflation

---

[bb] (*Cont'd*)

Name ("Company" omitted)	Total Cash Dividends (per cent per share)	Average Cash Dividends (per cent per share)	Stock Dividends (per cent)	Average per Year
Ingersoll-Rand	115.00	11.50	70.00	7.00
Lehigh Valley Coal Sales	81.50	8.10	55.00	5.50
P. Lorillard	82.00	8.20	20.00*	2.00
Niles-Bement-Pond	72.50	7.25	40.00	4.00
Nova Scotia Steel	36.75	3.70	40.00	4.00
Owens Bottle Machine	110.00†	11.00	128.30	12.80
Packard Motor Car	23.00	2.30	100.00	10.00
Pittsburgh Coal‡	5.00	.50	33.00	3.30
Procter and Gamble	166.00	16.60	24.00	2.40
Quaker Oats	111.00	11.10	63.20	6.30
Ray Consolidated Copper	124.75	12.40	5.00	.50
Safety Car Heating and Lighting	94.00	9.40	100.00	10.00
Sears, Roebuck	68.50	6.80	108.30	10.83
Singer Sewing Machine	140.00	14.00	100.00	10.00
Swift and Co.	82.00	8.20	83.30§	8.30
United Fruit	82.00	8.20	40.00§	4.00
United Shoe Machinery	106.00	10.60	40.00	4.00
Westinghouse Air Brake	174.00	17.40	78.30	7.80
Weyman-Bruton	192.00	19.20	20.00	2.00
Average		9.50%		5.40%

* This stock dividend was in lieu of the regular cash dividend.

† 8 per cent of a large cash dividend in 1918 was in Liberty bonds, but it was considered as cash.

‡ Considered as one company (the old Pittsburgh Coal Company and the new [organized 1917] Pittsburgh Coal Company of New Jersey).

§ Part of these stock dividends was in the form of "cash dividends," but such "cash dividends" could be immediately used by the stockholder to purchase new stock at par, although the market value was above par. In all respects, except the mere form of the vote of the directors, such dividends were stock dividends. In the case of the United Fruit Company the stock dividends were entirely of this character.

[cc] Besides large cash dividends paid almost continuously for over half a century—7 per cent from 1881 to 1904 and 20 per cent from 1904 to 1919—the company declared, in 1909, a dividend of 25 per cent in money, 25 per cent in the Delaware, Lackawanna and Western Coal Company and a stock dividend of 15 per cent in its own stock. In the autumn of 1911 it declared a dividend of 35 per cent in the stock of an important leased subsidiary.

[dd] An instance of this is the case of the Butte, Anaconda and Pacific Railway. Of its total capital 51 per cent is owned by the Anaconda Copper

before consolidation was in connection with the merger of the New York Central and the Hudson River Railroads in 1868.[ee]

There are several such cases from the recent history of the Pennsylvania Railroad. The Delaware Railroad, an old, long-established railroad in Delaware, was leased to the old Philadelphia, Wilmington and Baltimore Railroad on a somewhat intricate basis by which the lessee operated the road at cost, paid 6 per cent on the stock, and divided the remainder, half to the lessee and half to a sinking fund. In 1910, the Delaware Railroad having proved very profitable and the Philadelphia, Baltimore and Washington Railroad (the successor by consolidation of the old Philadelphia, Wilmington and Baltimore) wishing to simplify the terms of its lease, permitted the Delaware Railroad directors to declare a stock dividend of 70 per cent and a cash dividend of 25 per cent and then amended the old lease so as to provide for a fixed rental of 8 per cent on the enlarged stock of the Delaware Railroad.

The reasons that account for this particular difference of policy, as between industrials and railroads, is not founded on any substantial accounting or economic basis. On the contrary the practice of American railroad managers—to some extent since the early days of railroading, and quite conspicuously since the panic of 1893—has been to put a considerable

---

Company and 49 per cent by the Chicago, Milwaukee and St. Paul Railroad. Cash dividends have been paid, not exceeding 6 per cent per annum. In 1912 the company paid a stock dividend of 150 per cent.

[ee] Just prior to the consolidation of the two railroads, and with this very matter in prospect the old New York Central Railroad declared 80 per cent stock dividend. The act was condemned as "an unconscionable act of stock watering." Yet when the whole matter came under the review of the United States Supreme Court in connection with an internal revenue tax case, the court, in order to justify the government in assessing and collecting a tax on the dividend, admitted that the company "had earned moneys greatly in excess of their current expenses . . . the excess of earnings beyond current expenses had been expended in constructing and equipping their railroad and in the purchase of real estate and other properties with a view to the increase of their traffic. Accumulations of the kind had been appropriated in that way until the sum amounted in the aggregate to a sum equal to 80 per cent of the capital stock of the company." The whole case is a classic in the literature of railroad consolidation.[17]

---

[17] See Book IV, Chapter IV, page 737. See also Hepburn Committee Report; also Bailey v. N. Y. Cent. R. R. Co., 22 Wall. 604, 632 (1874).

portion of earnings back each year into the property. The "dollar for property for every dollar of dividends" policy, notable on such railroads as the Pennsylvania and the Burlington, would fully justify frequent stock dividends, especially as a railroad does not require large amounts of liquid capital. But the railroads have consistently pursued the policy of issuing new stock only for property or money, except for rare instances. As a result of this policy and the frequent reorganization of railroads which have arbitrarily reduced the stock and bond liabilities, railroads have since 1900 represented a capitalization less than the actual cost of their assets.

Public Utilities and Public Utility Holding Companies.—Stock dividends among public utilities present a peculiar history and some interesting cases. Owing to the fact that they would probably be frowned upon by public utility commissions, stock dividends have been seldom declared by local utilities. In fact certain state commissions have definitely gone on record as opposing the issue of stock to be distributed free to the stockholders even though greater amounts of earnings have been reinvested in the capital of the utility. If this attitude becomes at all general, it will put a handicap on the conservative administration of the utilities, forcing the directors to distribute all the earnings to the stockholders who might, in turn, loan them back to the company. These loans could then be capitalized as no commission would probably forbid the issue of new stock to refund loans, provided the proceeds of the loans had been wisely expended for improvements.

In contrast to the local utilities, the larger holding companies have frequently declared stock dividends.[ff] Using the term in a broad sense it was found that 17 public utility holding companies had, up to 1925, occasionally or frequently declared stock dividends.[19] The first stock dividend of this character, of which record has been found, was one of 15 per cent paid to the stockholders of the United Gas Improvement Company in 1896. This company found, after a long period of successful operation, that the actual value of the equity behind the common stocks of the local utilities held in its treasury had increased since these had been purchased through the reinvestment of earnings in the properties. It therefore decided in 1896 to distribute some of this increase in the form of a stock dividend. Considering the fact that the United Gas Improvement Company had itself invested its earnings in the plants of the operating companies or else permitted these operating companies to invest a large share of their own profits in their physical properties, this dividend could not be criticized as in any way a misrepresentation, notwithstanding the fact that the operating companies were borrowing—by long-term bonds—large sums for extensions not paid for out of earnings. Another stock dividend, based on the same assumption, was paid in 1910.

[ff] An investigation was undertaken to ascertain the relative frequency of stock dividends among both large and small public utility holding companies.[18] For the purpose of the investigation the widest possible definition of holding company was employed—any utility which held the stock of another utility. Under this broad definition the dividend records of 157 public utility holding companies were examined. Many, however, were merely local operating companies which happened to hold utility securities

[18] Miles, O. E., Stock Dividends of Public Utility Holding Companies, Harvard Graduate School of Business Administration (1926).

As a public utility must, by the nature of its business, expend continuously a large amount of money for improvements and extensions, its constantly reoccurring sales of stocks, notes and bonds are very much helped if a considerable proportion of the earnings are invested in new property rather than distributed as dividends. To satisfy stockholders, or perhaps to give them some tangible evidence of the reinvestment of earnings in the property, several large holding companies have established the practice of declaring regular stock dividends.

The regular stock dividend policy of public utility holding companies, based on the assumption that there is, ordinarily,

---

in their treasuries. Approximately 42 could be said to be utilities primarily engaged in holding operating companies' stocks, and of these many had only a local significance. Altogether 17 had declared stock dividends at some time.

---

[19] *Ibid.*

a regular and uninterrupted increase of equities held by the holding company, is best illustrated by the experience of the American Light and Traction Company. This company was organized in 1901 for the explicit purpose of assuming the ownership of the common stocks of about a dozen gas and electric companies situated in various parts of the United States. It was successful from the beginning. In 1904 it began to pay a small cash dividend on the common stock, which was slowly increased until 1911 when a regular annual dividend rate of 10 per cent was established. Meanwhile the earnings increased steadily, always remaining about twice the sum of the preferred and common stock cash dividends. Yet rather than increase the cash dividends, when a considerable part of the surplus earnings could be advantageously returned to the individual operating properties for extensions, the company began in 1909 to declare an annual stock dividend of 10 per cent on the common stock. This was maintained uninterruptedly for a period of ten years, but in 1920 it was reduced to 8½ per cent and in 1921 to 4 per cent, at which rate it has been since maintained.[gg] In 1914 the American Gas and Electric Company, another important public utility holding com-

---

[gg] This is shown easily from the following table (even thousands):

	Total Net Earnings	Preferred Dividends of 6% ($854,172) and Common Cash Dividends	Percentage of Total Earnings Represented by Total Cash Dividends	Stock Dividend on Common Stock	Annual Balance for Surplus Account
1908	$2,678,000	$1,349,000	50		$1,329,000
1909	3,239,000	1,632,000	51	$1,291,000*	316,000
1910	3,713,000	1,852,000	50	998,000	864,000
1911	4,030,000	1,955,000	48	1,101,000	963,000
1912	4,139,000	2,070,000	50	1,216,000	854,000
1913	4,343,000	2,195,000	50	1,341,000	807,000
1914	4,275,000	2,333,000	54	1,479,000	463,000
1915	5,022,000	2,487,000	49	1,633,000	902,000
1916	5,648,000	2,656,000	47	1,802,000	1,190,000
1917	5,023,000	2,842,000	56	1,987,000	195,000
1918	4,015,000	3,045,000	76	2,190,000	1,220,000
1919	4,143,000	3,271,000	79	2,417,000	1,545,000
1920	3,237,000	2,497,000	77	1,843,000	1,288,000
1921	3,871,000	1,970,000	51	1,115,000	425,981†
1922	4,382,550	2,015,000	46	1,161,000	877,000†
1923	4,089,000	2,062,000	50	1,208,000	639,000†
1924	4,828,000	2,111,000	44	1,257,210	1,279,000†

* 12½ per cent.

† After deducting interest on 6 per cent notes, amounting to $185,037 in 1920; $360,000, 1921; $330,000, 1922; $180,000, 1923; $180,611, 1924.

pany,[hh] inaugurated stock dividends of 4 per cent per year, after having accumulated a large surplus from earnings.

In the study previously mentioned [20] in which the term holding company was used in a broad sense it was found that seventeen holding companies had, up to 1925, occasionally or frequently declared stock dividends.[21] Stock dividends were more frequently found in the dividend records of the larger companies.[ii] Of the 17, all with capitalization over $1,000,000, 8 companies, or over half, made a more or less regular practice of declaring stock dividends.[jj]

The practice of holding company stock dividends may well be abused, or rather utilized for the purpose of creating an increased speculative value for the common stock. The Cities Service Company, observing probably the beneficial effect of regular stock dividends on the market prices of the American Light and Traction and American Gas and Electric Companies'

[hh] The dividend record of the American Gas and Electric Company since the inauguration of the stock dividend is as follows:

Year	Cash Dividends	Stock Dividends
1914	8	2
1915	8	4
1916	10	4
1917	10	4
1918	10	4
1919	10	29½
1920	10	4
1921	10	4
1922	10	29
1923*	10	10
1924	10	20

* The stockholders of February 20, 1923, voted to change the shares of common stock from par of $50 to shares of no par value, and to increase the number of shares. An exchange of the company's old common stock, par $50, for the new common stock of no par value, in the ratio of 5 for 1, was effected.

[ii] Altogether 140 holding companies were found with capitalization over $1,000,000. Of the 83 with capitalization between $1,000,000 and $10,000,000—only 3, or a little less than 4 per cent, had declared stock dividends; of the 74 with capitalization over $10,000,000—14, or about 20 per cent, had declared stock dividends.[22]

[jj] American Light and Traction Company
American Gas and Electric Company
American Power and Light Company
Cities Service Company
Federal Light and Traction Company
North American Company
Pacific Gas and Electric Company
United Light and Power Company

[20] Miles, *Ibid.*
[21] *Ibid.*
[22] *Ibid.*

common stocks, inaugurated a similar policy. After declaring 6 per cent stock dividends on the common stock in 1916 and 1917, the company declared a "monthly" stock dividend of ½ per cent January 1, 1918. This was increased to a "monthly" stock dividend of ¾ per cent on February 1, 1918, and the impression widely advertised that an increasing stock dividend would be continued, "as long as earnings permitted." In fact the company's directors allowed it to be published broadcast that "it is the announced policy of the company to increase the dividends paid in common stock 3 per cent each year so long as earnings of the company warrant. These stock dividends are to be in addition to the regular rate of 6 per cent per annum." [23] On the basis of this somewhat flamboyant prophecy the stock dividend was increased to 9 per cent in 1918, 12 per cent in 1919, and 15 per cent in 1920. The following year, however, although the company continued to pay the 15 per cent stock dividend, it was compelled to pay its cash dividend in notes. During the next three years from 1921 to 1924 the stock dividend was continued at the rate of 15 per cent, but notes were substituted for an ostensible cash dividend. In March 1925 the company adopted a saner course and paid cash and stock dividends at the rate of 6 per cent per annum. The spectacular fluctuations of the market price of the stock, accompanying this erratic dividend policy may well be understood.

Property Dividends.—Another type of security dividend, of considerable prominence since the large issues of Liberty bonds, is that involving a distribution of securities held in a company's treasury. During the Great War many successful industrial corporations made large subscriptions to government bonds. At the same time they obtained extraordinary war profits. A considerable proportion of these war profits was paid over to the United States Treasury in the form of war taxes, but the remainder was still abnormally large. Yet instead of depleting their cash reserves or selling their Liberty bonds to secure working capital these corporations paid special dividends in the Liberty bonds held in their treasuries.

---

[23] Manual of Corporation Securities, 1146 (1918).

Some corporations acquire the stocks of other corporations for legitimate purposes, but later decide that it is inexpedient or illegal to hold these securities. Accordingly they distribute them as special dividends.[kk] In 1919 the United States government forced the packing house of Swift and Company to get rid of certain of its subsidiary companies engaged in food businesses allied to the packing business. The stocks of these subsidiaries were distributed among the stockholders of Swift and Company.

The whole subject of stock and security dividends has assumed a new importance of late in connection with the income taxes of the federal government and several of the states. Each of the income revenue laws attempts to tax income wherever and however it occurs, with the exception of certain specific exemptions. Stock dividends are not specifically exempted, so that both the federal and state income tax commissioners have tried to tax stock and security dividends. This has been done under the Massachusetts state income tax, without serious objection from the courts, but the Supreme Court of the United States decided in two very important cases [24] that stock dividends are not income. As a result much discussion has arisen,[25] bearing partly on the economics of the

---

[kk] The United Shoe Machinery Company acquired the stock of the Thomas G. Plant Company. The Plant Company was engaged in the manufacture of shoes—not shoe machinery—but its owner had threatened to enter the machinery line of business. The purchase of the company's stock involved, therefore, merely buying out potential competition, but at the same time the Shoe Machinery Company found itself with the stock of a shoe factory on its hands. Accordingly it distributed the Plant Company's stock in the form of a stock dividend of $6, par value, a share to its own stockholders, payable July, 1916.

---

[24] Towne v. Eisner, 245 U. S. 418 (1917). Eisner v. Macomber, 251 U. S. 248 (Mar., 1920).

[25] See the exhaustive article by Seligman, E. R. A., 9 Am. Econ. Rev. 517 (September, 1919). Also Fairchild, F. R., and Bond, H. H., 3 Bull. Nat. Tax. Assn. 161 and 237. Also periodical articles appearing extensively in April, 1920, in reference to the leading Eisner v. Macomber case cited above.

distinction between capital and income and partly on the expediency and efficacy of trying to tax stock dividends.[11]

---

[11] The problem is, however, a very interesting and complicated one. It may be approached from four points of view.

Social Income. Income is the increase in capital, no matter how arising. In that sense increase in the size of a tree is income quite as much as net profits from the operation of a railroad. But this general conception has no significance for the question of taxation, because of the practical impossibility of assessing the positive changes in capital values wherever and however accruing without reference to individual ownership. To social income the question of the taxation of stock dividends is a matter of no importance. For the stock dividend is merely an objective sign implying—but not necessarily involving—a true increase of social capital and therefore true income, which it is desirable to transfer to other owners.

Taxable Income. That portion of the general social income which it is expedient, convenient, and economical to tax. This makes the question of taxation of stock dividends one of expediency for individual social groups—not a question of the strict logic of economic theory.

Accounting Income. That portion of general social or economic income which it is possible to reduce to the values of accountancy. All income specially set aside as reserves—or otherwise "earmarked"—as well as all income actually realized through gift or exchange—would be considered income from the point of view of accounting. Here, too, the question whether stock dividends are income has no significance. For if stock dividends are not declared the income will be "earmarked" as surplus, whereas if they are declared the surplus account is reduced to the same extent that the capital stock account is increased.

Personal Income. The specific part of the total economic or social income which each person is able to segregate for his personal use. Here stock dividends are of great importance. For if the income of a corporation is paid over in the form of stock dividends, it becomes of immediate use to the stockholders, whereas if it is not paid over to the stockholders, they cannot use it, no matter how large the income of the corporation may be.

CHAPTER VII

THE PRACTICAL EXPEDIENCY OF DIVIDEND DISBURSEMENTS

Application of Principles—Typical Cases.—The principles governing the declaration of dividends, enumerated in the last chapter, are significant only if applied to concrete cases. This involves a discussion of several more or less typical cases of different kinds of corporate enterprises. The problem is complicated further by the fact that the presence of a sinking fund, income bonds, or preferred stocks in the financial plan of a corporation will ordinarily affect the expediency of the declaration of dividends.

For the purposes of illustration we will consider four typical cases of corporate enterprise—a manufacturing company with both preferred and common stock; a public utility with bonds, a sinking fund, preferred and common stock; a railroad with bonds and common stock; and finally a bank with common stock only. We will assume that each has been in business a year and that each shows approximately the same net profits.

The Small Manufacturing Business.—The manufacturing business is engaged in the production of women's medium-grade, McKay-sewed shoes. It is a stable business, having few unusual features. It is subject to strong competition, as comparatively little capital is involved. Although fluctuating with business conditions it is not so mercurial as "fancy" and specialty business is. It can be easily contracted or expanded according to the demand for its product because of the comparatively small proportion of capital invested in fixed assets. In brief, it is thoroughly typical of stable manufacturing businesses.

For the purposes of illustration we will consider ourselves as dealing with a business of medium size. This business, we will assume, started with a paid-up capital of $1,000,000, divided into $500,000 common and $500,000 7 per cent preferred stock. The actual tangible property amounted to approximately $750,000. The preferred stock has been sold to small investors; about half the common stock is owned by the directors and the other half is owned by the public in small lots. The following figures show the results of the first year's business:

Total Sales	$6,500,000
Net Manufacturing Profit before Depreciation	74,000
Depreciation*	5,000
	$ 69,000
Special Reserves for Contingencies	10,000
	$ 59,000

* Very small in the shoe business as most of the machinery is leased.

With this statement before them the directors are called upon to decide two related but independent questions of dividend policy—shall a dividend of $35,000 be declared on the preferred stock, and if this question is answered in the affirmative, shall the directors distribute some of the remainder to the common stockholders or retain it all in the business?

The advantages of the corporation of declaring the full preferred stock dividend are connected with its credit among investors. If the corporation had little of its own money in the business, practically all being borrowed from the banks, it would clearly be inadvisable to pay any dividends, common or preferred, as such action would be interpreted unfavorably by the banks, as indicative of an "unconservative business policy." But in this case we are assuming that the working capital was procured by the sale of preferred stock to the public, the maintenance of whose good-will is more important even than that of the bank's. Most of the preferred stockholders bought their shares as investments for the income return, so that a failure to receive the dividends would not only destroy the future market for the company's preferred shares, but would also precipitate such extensive selling by the present holders as to reduce very much the market value. The abrupt fall in market price of shares that had, within the year, been sold ostensibly as investments would undermine completely the company's credit position. In brief, the ill effect on the company's good name, and on its future opportunities of selling securities to the public, that would come with passing the preferred dividend, would do vastly more harm than the $35,000 could do good if invested in the business. If there is insufficient money in the treasury to meet the dividend payment conveniently, in such a case as this, the amount may wisely be borrowed.

After $35,000 in preferred stock dividends have been paid
from the surplus of $59,000, there remain $24,000 that may
be either distributed among the common shareholders or re-
tained in the business. Obviously the manufacturing business
is subject to fluctuations and the company has no precedent to
guide it in predicting the future business. With reference
either to the total capital invested or the total sales, $24,000 is
a comparatively insignificant amount. It can be easily absorbed 1
if the accountant has overestimated the value of the accounts
receivable or the goods in process. It may be extinguished by 2
a sudden fall in the cost of leather. Moreover the arguments
which led to the payment of the dividend on the preferred stock 3
do not apply with any force to the dividends on the common
stock. The stock cannot have been acquired as an investment
for income except by one who misunderstands entirely the
nature of investments. Presumably it has no market value— 4
or at best a mere nominal price—so that the failure to pay a
dividend upon it will not affect its value. Moreover, the bank-
ing and investment world will recognize the full force of the 5
arguments that led to the payment of the preferred stock divi-
dend, so that such an action will not militate against the credit
of the corporation, but if the small remaining surplus be paid
out, the action will be interpreted as indicative of an improvi-
dent financial policy. The market price of the preferred stock 6

will fall. From all points of view, therefore, no dividend should be paid on the common stock.

Even though the second year of the company's history is conspicuously successful, again no dividends should be paid on the common stock for the same reasons as those indicated in the preceding paragraph. The willingness on the part of the directors to put the profits back in the business will have a markedly favorable influence on the company's credit. It will strengthen the investment position of the preferred shares and facilitate borrowing at the banks.

At the end of the third successful year the question of common stock dividend will reappear with increased force. Suppose the results of the three years are as follows:

	First Year	Second Year	Third Year
Total Sales	$6,500,000	$8,400,000	$9,200,000
Net Manufacturing Profit	74,000	101,000	126,000
Depreciation	5,000	5,000	5,000
Special Reserves	10,000	10,000	10,000
Stockholders' Surplus	59,000	86,000	111,000
Preferred Stock Dividend	35,000	35,000	35,000
Surplus Invested in Business	24,000	51,000	76,000
Total Surplus at End of Year	24,000	75,000	151,000

It is now a real problem for the directors whether some of the accumulated surplus of $151,000 may not wisely be distributed among the common stockholders. Clearly the business has been a success. The gross sales have increased nearly 50 per cent and the net profit at a greater ratio, showing that the management has the costs of doing business well under control. The accumulated surplus of $151,000 amounts to over 30 per cent of the total issue of $500,000 of common stock—upwards of half of which has been earned during the current year. The question turns now on the immediate future of the business. In view of the earning statements for the three years, the ability of the company to sell preferred stock in the open market will not be noticeably affected one way or the other by the declaration of a dividend on the common stock. Neither will the payment of a dividend affect the company's credit. Therefore the question narrows itself down to the directors' own judgment of the probable conditions and needs of the business in the immediate future. If they think that the same conditions which have prevailed during the preceding three years will continue, they may wisely declare a small dividend, say 2 per cent, or $10,000. This will reduce the surplus only one-fifteenth, or less than one-eighth of the current year's earnings. On the other hand, if the directors are aware of some possible combination of circumstances that may impair the earning capacity of the company during the next year, it is probable that no dividend should be declared. At all events, the initial dividend on the common stock should be small, and certainly no larger than there is every reason to suppose can be continued for a period of some years.

3 y

The Small Public Utility.—The second illustration chosen is that of a public utility corporation having bonds, a bond sinking fund, preferred stock, and common stock. Suppose a corporation has been formed in some northern state, say New York, to absorb three or four electric light plants in as many adjacent small cities. There are issued $800,000 of 5 per cent first mortgage bonds, $500,000 of 6 per cent cumulative preferred stock, and $1,000,000 of common stock. The bonds have been issued to the original owners or the bankers to pay for the property, and the preferred stock has been sold to small investors in order to get the money for necessary improvements. The common stock is distributed among the promoters, the bankers, and the public. During the first year the earnings are as follows:

Gross Earnings	$300,000
Operating Expenses including Taxes	145,000
Depreciation	10,000
Special Reserves	5,000
Net Earnings	140,000
Interest Charges	40,000
Sinking Fund	16,000
Net Stockholders' Surplus	84,000

As in the preceding case, the preferred stock has been distributed among small investors who bought their shares for the income yield, so that it is almost as necessary to pay the preferred dividends regularly, as to meet the bond interest. Otherwise future extensions to the plant cannot be financed by means of sales of stock to private investors, as preferred stock, upon which dividends are not being regularly paid is practically unsalable. It may be assumed, therefore, that the $30,000 of preferred stock dividends are paid, even though money must be borrowed, immediately, to pay for extensions. It will be easier, probably, to borrow money during the second or third year, even if the money to pay for preferred stock dividends has been borrowed and the general debt of the company increased, than it will be if no preferred dividends have been paid and the debt not increased during the first year. The evil results to a company's credit of passing the preferred dividend is shown by the effect on the market price of the preferred shares of many lighting companies during the troublous period of the Great War. The fact that the companies could show the dividends fully earned, but required the money for extensions, did not serve as a mitigating circumstance to excuse the action in the eyes of the great majority of preferred stockholders who had no interest in the welfare of the company other than in the investment return on their shares.

The situation in regard to the common stock is distinctly different, however, from that of the preferred. The presumption is that all who own the stock know or ought to know that it represents no actual money investment but merely a chance to participate in the future earning capacity of the company. Stockholders cannot claim to be entitled to a return on stock representing no actual investment. They are, or ought to be, closely associated with the actual management of the property. Their only right to a money return is based on the good results of an administration which has yet to vindicate itself. They may be presumed to be interested in the permanent welfare of the company and not in the temporary market price of their stock—in fact the only market price their stock has is fixed by trading among themselves. The public utility is a monopoly within its limited field; in consequence the common stockholders need fear no interference with their plans, and they will reap the full fruits of their management. Clearly, then, from every point of view it will be inexpedient and unjustifiable to pay a dividend on the common stock.

At the end of three years (following the same steps of reasoning as in the preceding case), the question of a dividend on the common stock presents itself rather differently. Suppose, as in the previous instance of the shoe company, this public utility enterprise has been continuously successful during the period. After the payment of the bond sinking fund instalment and the regular 6 per cent dividend on the preferred stock there remain $56,000 for the first year, $71,000 for the second, and $92,000 for the third. The gross revenue has steadily increased. The property has been kept in good physical condition, and the depreciation and other reserves are judged adequate. Of the accumulated surplus of $219,000, nearly $200,000 has been invested in improvements and the remainder is in cash and accounts receivable.

For the utility, under these circumstances, the question of dividends on the common stock narrows down to the question of a possible source of additional funds for improvements. This is not important in the case of the shoe business because any increases in the volume of business will be financed by the sale of notes and acceptances, and new investments in fixed capital will be small under any circumstances. But in the case of the electric light company the increase of business must be met by large increases in fixed capital investment, and these ought not, under any circumstances, to be financed by notes or acceptances discounted at the banks. Therefore, if the directors of the company foresee that large improvements will be necessary immediately, the funds for which cannot be obtained cheaply by the sale of bonds or preferred stock, they ought not to pay out any money in dividends. The demands of the public for improvements are imperative and cannot be neglected without jeopardizing the company's most valuable asset, its goodwill. If, on the contrary, no considerable improvements are needed, or if funds for these can be obtained easily and cheaply from bankers, then a small dividend, perhaps 1 per cent, may wisely be paid to the common stockholders.

The Small Railroad.—The third illustration chosen is that of a small railroad having bonds and common stock. As in the case of the public utility company, the common stock is probably all issued to the promoters and their associates. The entire money cost of the road is somewhat less than the face value of the bonds. Let us suppose that the railroad has been successful during the first year and that, as in the two previous cases, a stockholders' surplus has accumulated after the payment of fixed charges. Clearly a railroad enterprise is, like manufacturing, susceptible to general variations in business conditions. It is more seriously affected by these changes than is the local public utility. All the reasons, therefore, which were advanced against the payment of a dividend during the first year from the surplus of either the manufacturing or the public utility business will apply with equal force here. Since no preferred stock has been issued, the problem of a preferred stock dividend does not present itself.

In a sense the peculiar difficulties of both the manufacturing and the public utility businesses are combined in the railroad. Like the manufacturing business, it is affected by fluctuations in general business conditions and must therefore conserve its surplus in good years to protect it against possible losses in bad years. Like the public utility, it must be prepared to make large and costly extensions and improvements to meet the requirements of the public and must not finance these through bank loans. Circumstances require, therefore, that the new road should conserve its earnings to meet these capital costs, unless it is absolutely assured of being able to obtain money easily and economically from the sale of additional bonds. There is every reason, therefore, for directors of a railroad to hold back dividends from the common shareholders, even after the railroad can show several years of liberal earnings. Unless there develops some conspicuous reason for the declaration of dividends, such as the psychological effect in the community, none should be declared for a period of four or five years, and then not unless the road has secured for itself such a high credit as will insure the further sale of bonds. In other words, in spite of the semi-public character of railroads and the high esteem in which they, as a class, have been held among investors, the initial dividend on the common stock should be postponed even longer than in the case of the manufacturing company without bonds or the local public utility with both bonds and preferred stock.

The Local Bank.—Our fourth illustration is that of a bank with only one class of stock. This stock has probably been paid for at its full par value in money. But here, more than in the case of any of the other businesses cited, the general credit of the bank in the community is of first consideration. The bank's good-will is very much enhanced if it shows a considerable surplus, especially when this is fully earned. To this end no bank should pay out earnings in dividends until it has accumulated such a surplus. The amount needed will vary according to the financial conservatism of the community which the bank serves and the general commercial integrity of the men who are responsible for the policy of the bank. The earnings ~~derived from the use of this surplus will accumulate~~ to the benefit of the stockholders so that no permanent sacrifice will ~~be required of them as a result of their loss of~~ dividends.

Effect of Widespread Ownership of Common Stocks.—In all these cases the presumption has been that a part of the common stock is held by the directors and part by the public. If all the common stock is in the hands of small holders, who, whether they hold for investment or for speculation, are seemingly loyal to the company, the policy to be followed is somewhat different from that so far suggested. In this case small dividends should be begun sooner, in order to strengthen the investment position of the stock, but especial care must be taken that a rate be not established which cannot be maintained. On the other hand, when the common stock is held entirely by the management there is no need of exerting a special effort to preserve its investment character, except that a dividend once begun should be maintained in order to preserve and strengthen the general credit position of the company.

Action of the Union Pacific Directors.—In closing this discussion no more comprehensive summary of sound dividend policy can be found in the whole annals of American financial history than a certain resolution of the Board of Directors of the Union Pacific Railroad. An entirely new and very able management acquired control of the road at the time of its reorganization in 1897. During the succeeding two years large sums of money were expended in betterments. Control of connecting roads was acquired at low prices and through able management enormous equities were built up for the benefit of the Union Pacific Railroad. And the gross and the net earnings had increased by leaps and bounds so that the general credit of the road was becoming firmly established, notwithstanding its previous unfortunate history. Yet the directors, on the crest of this initial prosperity, refused to pay the full dividend on the preferred stock and passed a resolution which began as follows: "Whereas the company has been in possession of all its main lines barely a year, and of its branch lines a less time, and is therefore without a basis of experience for determining any fair average of results for unequal years, and it is not deemed advisable to add to the bonded debt, but to continue a liberal application of surplus income to permanent improvements and additions and to such uses as will secure economy of operation and increased earning power, and thereby establish stable and permanent values for its securities and a reasonably safe minimum basis of regular dividends to its stock. . . ." This is sound finance. And the marvelous success of the Union Pacific Railroad during the following decade is the strongest kind of empirical proof of the wisdom contained in this resolution.

CHAPTER VIII

TREATMENT OF SINKING FUND RESERVES

Reasons for Sinking Fund.—The sinking fund for bonds is a part of the stockholders' net earnings, temporarily set aside. It is the most important of the various special reserves segregated from the general surplus. By means of it a part of the funded debt liability is extinguished directly out of earnings. From the point of view of the corporation its value lies almost entirely in the increased attractiveness and therefore higher market price which its presence gives to corporate funded obligations. This is true not only for the whole issue when first sold to bankers, but also for individual bonds throughout the life of the issue. The regular and imperative demand of the sinking fund trustees always affords a market for at least some of the bonds.

The increase in market price of corporation bonds by reason of the presence of a sinking fund is one of the most interesting aspects of corporation finance, because its causes are essentially psychological. They are remnants of a point of view which regarded corporation finance as grounded on the same principles as private finance—remnants of the original sharp divergence between the position of owner and that of creditor. The stockholder recognizes the permanence of his investment but the bondholder clings to the fiction that his security must be redeemed in money by the corporation at a certain definite time. He assumes that the bonded lien on the corporation's assets is but temporary and that the stockholders look forward to the time when the corporation shall be free from debt.

Aside from this advantage of greater market price the basis of the sinking fund in corporation finance rests entirely on the character of the security behind the bond. If it may reasonably be presumed that the property covered by the debt will be as valuable when the bonds are due as when they are issued, there is no need for a sinking fund, as the corporation will be able to refund them without serious difficulty. If, on the other hand, there is little specific property behind the bonds, it is necessary to create a reserve during the time they are outstanding, so that money for their payment may be available in case the general credit of the corporation is not strong enough to insure their reissue. Similarly in cases where the property behind the bonds is gradually used up by the operation of the business, as with timber or coal, the bonds must carry a sinking fund to protect the principal of the loan.

It should be added, also, that if the sinking fund provisions make it obligatory for the corporation to buy the bonds in the open market, the general salability of the bonds during their life will be increased somewhat. This is especially true of small issues but little known and possessing, as a natural consequence, a narrow market.

Use of Sinking Funds Decreasing Among Railroads.—Until 1893 the sinking fund provision was common among railroad bond issues—on the assumption that railway mortgages should be ultimately paid off.[1] It gave considerable trouble, however, as a trustee of a bond issue would not force the payment of the instalments if such a course was likely to result in a receivership. In that event the bonds which he was seeking to protect would be injured to a vastly greater degree, as experience had shown that the publicity of a railroad's financial disaster hurts the value of every one of its bond issues, even the most secure. The trustee, therefore, merely brought pressure to bear on the railroad corporation to meet the sinking fund obligation, but if the management remained obdurate nothing was accomplished. So that in practice, at the critical moment when the sinking fund was intended to be of most use in protecting the bonds, it proved to be completely ineffective.

---

[1] There were, of course, exceptions, and the issue of the Lehigh Valley Consolidated Mortgage 4½ per cent and 6 per cent Annuities of 1873 showed a willingness of one railroad corporation at least to create perpetual debt.

Furthermore, the railroads had attained, at the close of the century, such an important place in the economic development of the country that their semi-public character was recognized on all sides. In spite of adverse legislation, which tended to reduce any extraordinary profits which they might secure, there had been handed down many decisions by state and federal courts which protected them in earning at least a fair rate on their investment.[2] As the bonded debt was reduced, through successive reorganizations, to an amount well within the replacement cost, the investors recognized that the courts would protect the railroad, under all ordinary circumstances, in the payment of the underlying bonds. Beginning about 1894 these bonds were therefore made of late maturity, and were not provided with sinking fund provisions. They were, in effect, irredeemable debts. During each successive year, through the reinvestment of earnings and the proceeds of the sales of overlying securities in the physical property of the roads, the security of these long-term bonds has been strengthened much more than any sinking fund could have strengthened it. In other words, the market value for the funded obligations of railroads no longer needed an artificial stimulus.

Use of Sinking Funds Increasing among Industrials.— Since 1893 most of the old underlying sinking fund railroad bonds have either been paid off or else refunded into the large permanent general mortgage issues. It was found, as a result of a special investigation,[a] that of a random selection of 244

---

[a] Kielland, C. M., a student in Yale University, made an exhaustive study, under the author's direction, of 1,814 different bond issues for the purpose of tabulating the different kinds of sinking funds and their methods

---

[2] There have been numerous exhaustive studies of the growth of the doctrine of judicial review of the reasonableness of railway rates. See especially Adam, A. D., 7 Pub. Am. Econ. Assn. 3d Series 24 (1906), and Smalley, H. S., *Ibid.* 83. Also the illuminating article entitled "The Regulation of Railway Rates under the Fourteenth Amendment," Swayze, F. J., 26 Quart. Jour. Econ., 389 (1912). These three articles are reproduced in Ripley, W. Z., Railway Problems (1913). In the important cases down to 1885 (16 Wall. 36; 94 U. S. 113; 108 U. S. 526; 110 U. S. 347) the Supreme Court was inclined to hand the railroads over to the tender mercies of the state legislatures, but in a series of important cases immediately following the Supreme Court has sought to protect them in earning a fair rate of return on invested capital. See 116 U. S. 307; 134 U. S. 418; 156 U. S. 649; 164 U. S. 578; 169 U. S. 466; 174 U. S. 739; 183 U. S. 79. These citations cover important cases down to 1902.

railroad bond issues, 36 only, or less than 15 per cent, were protected by sinking fund provisions. This represents a lower percentage than that of any other class of corporation bonds. Furthermore, there is evidence that the use of sinking funds is increasing, especially among industrials. A recent investigation, restricted to industrial bonds issued between 1914 and 1924, shows that over 89 per cent of the recent industrial bonds either had a sinking fund or matured serially.[3]

The practice of issuing bonds with a sinking fund requirement is much commoner outside railroad issues. Investors have not been ready to concede to other forms of private enterprise the public character of railroads, so they have required the presence of the sinking fund provision to make more certain the refunding or the redemption of the bonds at maturity. This is especially true in the case of industrials—as evidenced by the study quoted in the preceding paragraph—presumably because of the instability of the earning capacity of the property behind the bonds. Among public utility companies, about half of their bond issues now contain provisions for sinking funds. The frequency of sinking funds in these issues is due more to the competition for the favor of investors than to any other reason. No type of enterprise has called

---

of operation. Many of the statistical computations in this chapter are taken from his unpublished thesis. The results in concrete form were as follows:

All Outstanding	Number of Bond Issues Examined, June, 1914	Number with Sinking Fund Provisions	Percentage with Sinking Fund Provisions
Railroads	244	36	14.7
Public Utilities	991	419	42.3
Industrials	517	294	56.9
Mines	62	44	68.8
Total	1,814	793	43.7

[3] Friedlander, A. J., A Statistical Study of Industrial Bonds Issued Between 1914 and 1924, Harvard Graduate School of Business Administration (1925).

	Number	Percentage of Whole
Serial	113	15
Sinking Fund	559	74
No Serial Maturity or Sinking Fund	80	11
Total Number of Industrial Bonds used	752	

more continuously and for larger amounts of capital since 1907 than the public utility corporation. It is natural, therefore, that every effort should be made to define a form of security that would appeal strongly to the bond buyer. The addition of a sinking fund provision undoubtedly strengthens the apparent security in the mind of the ordinary investor, and thus increases the marketability of public utility issues under conditions of strong competition.

The sinking fund provision is necessarily and invariably used to protect bond issues of private enterprises where the property behind the bonds is of short life, or rapidly decreases in value. The first case is illustrated by the equipment of railroads and the other by the ore bodies of mines. As explained at length at another point,[4] practically every equipment obligation is issued in a serial form or else protected by a very large sinking fund. This is always true except in the very few cases when equipment bonds are issued by railroads of very strong credit, cases in which the equipment lien is only incidental to the general lien on other assets of the road. Bonds are issued infrequently by mining corporations and practically every one of these few issues is protected by a sinking fund requiring that the bonds be redeemed as the mineral assets of the company are dug out.[b]

Of anomalous character, but closely connected with the use of the sinking fund provision in bond indentures, is the requirement sometimes inserted in the preferred stock contract that reserves shall be set aside each year to be used for the purchase in the open market of preferred stock. This provision

---

[b] Keilland found that of 456 corporations engaged primarily in mining, 111, or 24 per cent, had (1914) issues of bonds, and of these, 62, or 13 per cent only, were greater in amount than $500,000. Of these 62 issues, 44, or 69 per cent, had sinking funds. Had he omitted from consideration certain bond issues partially secured by valuable manufacturing properties and others of iron mines indorsed by a corporation of high independent credit, the proportion of sinking fund issues would have been over 90 per cent.[5]

---

[4] Book I, Chapter VII.
[5] *Op. cit.*

is inserted to render the stock more attractive to investors since the continual purchase by the company supplies an artificial demand for the preferred stock and tends to increase the equity belonging to the preferred stock that remains in the hands of the public. This sinking fund provision has been included only in the preferred stocks issued within recent years, so that the actual results of its operation are as yet not known. Yet the fact that it has been used most extensively in connection with preferred stocks of inferior quality which could not be sold except by the use of special and often surreptitious inducements does not augur well for its general adoption. At all events the contract by which a corporation agrees to purchase and retire its own stock represents one more step toward the obliteration of the fundamental distinction between the creditors and the owners of the corporation. Clearly the preferred stock which a corporation obligates itself to buy at a definite future time and at a definite price is merely a funded obligation parading under another name.

The specific provisions of these preferred stock sinking funds were discussed in Book I, Chapter III, dealing with preferred stocks as a whole.

Methods of Operating the Sinking Fund.—The fundamental purpose of the sinking fund is to reduce the ratio between the amount of the debt and the value of property by which it is secured. The margin above the bonds, the equity, is increased. Different provisions apply to the operation of different sinking funds but this end is the primary one in all cases. The variations concern either the rates of payment into the sinking fund reserve or the manner in which the reserve shall be invested. These variations, some of which are of considerable significance, are almost innumerable.

The following table illustrates some of the more familiar methods of fixing the amount of sinking fund reserve to be set aside annually:

A. Type of sinking fund most frequently occurring. Fixed regular instalments—applying more commonly to closed issues of bonds:
  - (a) Fixed amounts of money.
  - (b) Fixed par value of bonds.

B. Varying but clearly defined proportional instalments not determined by the results of the business—applying more commonly to open issues of bonds:
  - (a) Instalment a proportion of the outstanding bonds. This is the commonest provision.
  - (b) Instalment a proportion of total capitalization or entire debt.

C. Varying instalments determined by the results of the business:
  - (a) Instalments proportional to the gross earnings.
  - (b) Instalments proportional to the net earnings.
  - (c) Instalments proportional to the admitted surplus.
  - (d) Instalments proportional to the dividend payments.

D. Contingent payments:
  - (a) Optional payment determined by a maximum and a minimum.
  - (b) Entirely optional.

Fixed Annual Instalments.—The first group of sinking fund provisions, included under the first type of the classification given above, represents those bond issues in which the corporation is required to set aside a definite fixed amount each year. Sometimes the corporation is required to invest annually a definite sum of money in bonds. Thus in the case of the American Hide and Leather Company 6 per cent bonds due 1919, the company agreed at the time of issue to appropriate $150,000 in money each year with which to buy its bonds. In such a case the amount of bonds acquired would, of course, vary with the market price. More frequently, however, especially in railway issues, the bond indenture requires the corporation to purchase a definite face amount of the bonds, irrespective of market price. For example, the sinking fund provision of the Pennsylvania Railroad Consolidated 5 per cent Gold Bonds of 1919 required bonds to the face value of $50,000, to be retired each year. The General Mortgage of 1959, of the Public Service Corporation of New Jersey, required the payment into the sinking fund of $209,500 of the bonds each year. Such a provision of a fixed and constant instalment was applied chiefly to the old closed issues of bonds brought out before 1907. As a whole this group of fixed sinking fund payments constituted by far the largest group for all closed issue bonds. This would comprise the old railway issues and current industrial bonds in industries that use up the assets, such as mining and lumbering.[c]

Varying, but Clearly Defined Instalments.—The second group in the preceding classification represents those sinking funds which vary according to the amount of outstanding bonds. The instalment is ordinarily a definite percentage of the volume of bonds in the hands of the public, so that the larger the par value outstanding, the larger will be the total par value of bonds absorbed each year by the sinking fund. Clearly the method applies particularly to the so-called open-end mortgages, and as the majority of the current issues of bonds are of this character, it may be said to be the usual current

---

[c] A detailed study of the conditions of payment of 309 different sinking funds, selected at random, shows the following results, tabulated by percentages. (Kielland, *Op. cit.*)

	Railroads	Public Utility	Industrial	Mining
Percentage of total sinking funds belonging to Group A	61%	36%	38%	44%
Percentage with definite money payment	22	26	27	38
Definite fixed par value of bonds	39	10	11	6

Friedlander[a] found that out of a random selection of 752 industrial bonds issued between 1914 and 1924 approximately 50.4 per cent belonged to this group.

---

[a] *Op. cit.*

form of sinking fund provision. It is used to increase the appearance of the safety of the loan.

There are a great variety of ways in which the instalments of the sinking fund for these bonds are specifically defined. The simplest is a constant percentage of the outstanding issue so that unless bonds are later issued under the mortgage the annual reserves will remain constant throughout the entire life of the bond. In other cases—and this provision is becoming more common among public utility issues—the percentage is made to increase as the date of maturity approaches, so that the rate of the enhancement of equity shall increase with the age of the bond. The specific amount of reserve may be a definite, increasing amount of money,[d] or a definite, increasing proportion of the outstanding bonds. Owing to the general and perhaps well-grounded belief that large open-end bond issues do not properly protect the investor, the various public utility operating companies have vied with each other in inventing new and complex sinking fund provisions for their holding company bonds which shall tend to allay the suspicions of investors. As a result, the variations and modifications of the "accelerating" sinking fund reserves are almost legion, one of the commonest being that of basing the sinking fund on the entire outstanding debt.[e] As this method of defining

---

[d] As, for example, in the collateral trust bonds of the Railway and Light Securities Company. The so-called "First Series" were issued in 1905 and mature in 1936. The annual sinking fund requirements are:

1905—1910	
1911—1914	$10,000
1915—1919	15,000
1920—1924	20,000
1925—1935	27,000

The sinking fund provision of the Canadian Car and Foundry 6s of 1939 requires a reserve annually in cash of 2 per cent of the outstanding bonds to be invested in the bonds of the company, and this fund is increased by the interest on the previously redeemed bonds.

[e] An example of this is to be found in the sinking fund provision of the collateral trust—called erroneously First Mortgage—5 per cent, 1942, bonds of the Federal Light and Traction Company. The bonds were issued under an open-end indenture which provides for annual sinking fund payments as follows:

1913—1923	1½% of the outstanding bonds
1924—1933	2% of the outstanding bonds
1934 - 1942	2½% of the outstanding bonds

the sinking fund is of recent origin and has arisen in response to the competition for the sale of large junior and poorly secured public utility issues.[f] Although not present in the majority of industrial bonds issued before the Great War, a sinking fund provision is almost invariably present in those industrial bond issues brought out since 1915. In fact, industrial bond issues are, to all intents and purposes, unsalable without some kind of sinking fund provision.

Reserves Depending on Fluctuations of Business.—The third group in the preceding outline includes that class of sinking fund provisions in which payments vary with the condition of the business. They usually pertain either to businesses susceptible to marked fluctuations in revenue and earnings, or else to businesses involving the gradual consumption or wastage of the capital assets. With but few exceptions, the rate of payment into the sinking fund depends upon one of four variables—the gross volume of business, the net earnings, the admitted surplus, or the dividend payments.

The first of these forms is the commonest. It represents that the sinking fund payments shall vary with the total volume

---

Frequently the sinking fund provision of the large open and refunding issue requires that the amount to be set aside shall be based on the total bonds outstanding including the underlying issues. Thus the sinking fund requirements for the Dayton Power and Light Company Refunding 5s of 1941 permit the percentage to be computed on "all bonds of this issue outstanding and all underlying bonds and bonds of corporations 51 per cent of whose stock is owned." The percentage in this case, as in that of most large open-end mortgages, increases as the bonds approach maturity:

1917—1924	1%
1925—1932	1½%
1933—1940	2%

But in computing the annual sinking fund instalments for this issue, the sinking fund for any of the underlying issues may be deducted.

[f] Thus of 311 bonds having sinking fund provisions, only 3 per cent of the industrials belonged to this group, none of the mining and none of the railroad bonds. In contrast 39 per cent of the public utility sinking funds were of this type. The list included all forms of public utility bond issues. (Kielland, *op. cit.*) This study represented conditions prevailing before the Great War. The attitude of the investor in this respect has since changed. The writer is of the opinion that fully 80 per cent of the holding company and large junior public utility issues—especially those sold since 1911—are provided with this form of sinking fund. This is true to an even larger extent as to current industrial bond issues.

of business; and sinking funds of this character may be aptly called output sinking funds. Most mining bonds have provisions requiring the payment to a trustee of a certain sum of money for each ton of mineral removed from the ground. The customary amounts are 10 cents a dry ton of copper ore treated,[g] 5 cents a ton for coal mined,[h] and 2 cents a barrel for oil delivered at the storage tanks.[i] Other mineral deposits used as security for bond issues are less susceptible to uniform methods of amortization.[j]

This type of sinking fund is also very common in bond issues covering various forms of assets that are gradually sold, such as timber and land. While the ordinary timber bonds are serial in form and, like the railroad equipment issues, mature without respect to the volume of business of the issuing corporation, large lumbering companies have issued some long-time bonds with specific sinking fund provisions. These involve the payment to the trustee of a small stumpage reserve for all the timber cut.[k] In the case of land companies, the sinking fund provision usually requires the redemption or purchase of bonds in proportion to the sales of land.[l] In a very few other cases this form of sinking fund requirement is used by corporations the assets of which neither depreciate rapidly, nor become exhausted.[m] But this method of paying into the sinking fund a fixed proportion of gross earnings, although it certainly is quite the simplest device for securing a correspondence between the sinking fund payments and the fluctuations of the business, is practically never found in corporations with the ordinary type of assets.[n]

---

[g] Chino Copper Company 6s, 1921, required a payment of 10 cents per dry ton of copper ore treated during the preceding calendar year. Frequently the rate increases as the bonds approach maturity—as in the sinking fund of the Ray Consolidated Copper Company 5s, 1921, in which the rate was 10 cents per dry ton until 1917, and thereafter 20 cents per dry ton. A similar provision existed in the sinking fund of the Inspiration Consolidated Copper Company 6s of 1922.

[h] Vandalia Coal Company 6s, 1930, required a payment of 5 cents per ton of coal mined and shipped. This amount is by no means uniform. Out of some twenty sinking fund provisions of coal bonds, about half were found to have the 5 cents provision and about half had various other rates. For example, the Cambria Fuel Company 6s, 1925, had a sinking fund provision requiring the payment of 15 cents per short ton mined and shipped, whereas the Consolidation Coal Company 4½s of 1922 required the payment of only 1 cent. Next to 5 cents, the commonest rate of payment for coal bonds was found to be 3 cents. As in other cases, the rate may vary from year to year; the Consolidation Coal Company 5s of 1950 required the payment of 2 cents per gross ton run-of-the-mine for the first five years, 3 cents for the next fifteen years, 4 cents for the next ten years and thereafter 5 cents until the maturity of the bonds. Frequently there is a minimum limit as in the sinking fund provision of the Pittsburgh Buffalo Company which required a payment of at least $100,000 a year whether or not any coal is mined; or a maximum limit, as in the New River Company 6s of 1934, the sinking fund of which required that 3 cents a ton must be set aside but that the total sinking fund reserve shall not exceed 3 per cent of the outstanding bonds in any one year.

[i] Mexican Petroleum Company, Ltd. of Delaware 6s, 1921, require a payment of 2 cents per barrel of oil delivered by subsidiaries. The Indian Refining Company 6s of 1921 require a sinking fund of 60 per cent of the value of all oil produced. It is very bad financial policy to issue bonds on oil properties and comparatively few important issues are to be found. A dry oil well affords no more security for bonds than an abandoned mine. If the wells are numerous and widely distributed over different fields there may be a substantial security, but under all circumstances the bond issue should be comparatively small and of early maturity. A sinking fund alone, based on the oil flow, will not give sufficient security, for the very simple reason that the oil may sometime cease to flow.

[j] For illustration, International Agricultural Corporation 5s of 1932 required 20 cents a ton of phosphate rock mined; and the bonds of the American Lime and Stone Company require a sinking fund of 3 cents a ton of stone mined.

---

[k] For example, C. A. Smith Timber Company 6s, 1927, require the reserve of $3 per thousand of pine cut, $2 per thousand for redwood, $1.50 for other kinds of lumber. The St. Lawrence Pulp and Lumber Company 6s, 1932, require a reserve of $3 per thousand for all forms of lumber cut and $1 per cord for pulp wood. The Central Leather Company, a large and valuable part of whose property is timber lands had no "sinking fund" so called to protect its First Mortgage 5 per cent Bonds of 1925, but the company was required to set aside a "depreciation fund," which is another phrase for the same idea. When these bonds came due in 1925—the tanning business then being in very bad condition—they were refunded by another issue of 6 per cent bonds which rested for their security largely on the timber lands of the Central Leather Company.

For more detailed discussion of means for protecting timber bonds see McGrath, T. S., Timber Bonds. A brief, illuminating discussion of the "Technique of Timber Bonds," *Boston Evening Transcript*, p. 8 (March 9, 1914).

[l] For example, the Lewiston Land and Water Company, Ltd. is obligated to set aside $150 for every acre sold, to be used to retire the bonds. In return the trustee releases the land sold from the mortgage securing the bonds. The sinking fund of the Bessemer Coal, Iron and Land Company 6s of 1931 requires a sinking fund reserve of 55 per cent of the selling price of all land sales.

[m] Thus the Electrical Development Company of Ontario, Ltd. First Mortgage 5 per cent Bonds contain a sinking fund provision that, commencing in 1911, $1 must be paid into the sinking fund annually, for each electrical horse-power sold and paid for during the preceding year. Such a requirement has little meaning unless supported by an additional clause that makes imperative the setting aside of some definite minimum each year. Such is the provision in the somewhat complicated sinking fund requirements of the Niagara, Lockport and Ontario Power Company's First Mortgage 5s of 1954. "Sinking fund for purchase of bonds at not exceeding 120 and interest began November 1, 1909, and will receive at least 13 cents per 1,000 kw.-hrs. of electric power transmitted during preceding 12 months ending August 1 of each year, at least equal to 4½ per cent of gross earnings and at least $25,000 yearly to and including 1919; thereafter not less than $35,000 yearly to and including 1929; thereafter not less than $50,000 yearly."

Quite often, and the cases are increasing in number, the sinking fund payments are made to depend on net earnings or on dividend disbursements. Sometimes the payments are merely conditional upon net earnings. Thus the twenty-year 8 per cent debentures of the Pierce Arrow Motor Car Company have an annual sinking fund of $250,000, payable out of earnings after fixed charges. If not paid in any one year, it is cumulative. A similar provision is to be found in the Goodyear Tire and Rubber Company debenture agreement, only here the sinking fund payments are payable after the preferred stock dividends. In most of these cases, however, the sinking fund covenants provide for a specific minimum payment, no matter what the net earnings or dividend payments may be, which must be increased as the earnings increase. Thus, the Holly Sugar Corporation bonds require a semi-annual sinking fund payment of $100,000 and in addition an amount equivalent to the cash dividend disbursements. The Beattie Sugar Company bonds require a minimum of $50,000 for the first two years of their life and $100,000 thereafter; but if an amount equivalent to 50 cents a bag of sugar plus one-tenth of the sum available for dividends exceeds these minimums, then this amount must be regarded as the sinking fund liability. The Wyoming Sugar Company bonds have a minimum sinking fund payment ranging from $20,000 to $55,000 a year plus an amount equivalent to the preferred dividends. Obviously the variations of this form of sinking fund are legion.[o]

---

[n] Thus the sinking fund of the Commonwealth Water and Light Company 5s, 1934 requires 10 per cent of the gross earnings and the proceeds of all property sold. This percentage is also required as the sinking fund on the First Mortgage 5 per cent Bonds of the North Shore Gas Company.

[o] Other cases of a similar character are as follows:

Indiahoma Refining Company bonds require a constant sinking fund of $12,000 a month and an additional fund equivalent to any dividends paid in excess of 8 per cent.

These various combination methods of computing the sinking fund payments are probably more accurate criteria of a corporation's success than the mere volume of business, but they are more susceptible to dispute between the trustee and the corporation; and that method of determining the absolute amount of the sinking fund payments is best which is clearest and least susceptible of misunderstanding. For that reason the most practical of these variable methods is that of fixing the fund in accordance with the dividend payments. The presumption is that the rate of dividends is an index of the net earnings, but if the management prefers to keep the money in the business and thereby reduce the sinking fund payments, the equity behind the bonds is strengthened quite as much or more than if some of the bonds were canceled through the sinking fund. In very rare cases the sinking fund payments depend both on the net earnings and the dividend disbursements—a combination of this and the preceding plan. Thus in the case of the First Mortgage Bonds of the Nevada-California Power Company, 20 per cent of the net earnings must be appropriated for the purchase and cancellation of the bonds and in addition an amount equal to any dividends on the stock in excess of 6 per cent must be set aside for the same purpose.[p]

Louisiana Oil Refining Company bonds require a minimum annual payment of $200,000 plus one-half of all net earnings. This fund may, however, be used for improvements instead of the retirement of the bonds.

The Continental Asphalt and Petroleum Company bonds require a sinking fund of 10 per cent of gross earnings and 15 per cent of net earnings.

The mortgage of the York Haven Water and Power Company Consolidated 5 per cent Bonds involves no sinking fund from 1907 to 1927, but from 1927 to 1957 it is provided that a sinking fund of 10 per cent of the net earnings shall be set aside. A similar method is used to determine the amount of the improvement fund in the Kansas Gas and Electric Company First Mortgage Bonds. See note (v).

The sinking fund provision of the Cuban American Sugar Company 6s of 1918 required the payment to the trustee of 25 per cent of the annual dividend disbursements during the life of the bonds. The American Malting Company 6s of 1914 required the reservation for the sinking fund of 50 per cent of any dividend paid on the preferred stock.

[p] In a few cases the sinking fund can be drawn only from the surplus earnings, the inference being that the accumulated profits of previous years may be used for the sinking fund payments. Thus the sinking fund of the American Brake Shoe and Foundry Company's First Mortgage 5s of 1952 requires the payment of $20,000 a year from the surplus earnings.

Optional Sinking Funds.—The fourth group of sinking fund provisions represents what might be called "optional sinking funds." They are rare, however; the bonds of some of the Cuban American Sugar Company's subsidiaries represent, perhaps, the most notable examples. In these optional sinking fund covenants the corporation may make the sinking fund payments at its pleasure or convenience. As it usually suits the convenience of the company to make sinking fund provisions when the earnings are large—at a time when additional security for the bonds is unnecessary—and does not suit its convenience when the earnings are small, the provision of optional payments adds but little to the security of the bonds. If, however, this optional provision takes the form of the so-called maximum and minimum payments, the sinking fund may add somewhat to the security. In such cases the annual reserves are optional between two limits but the payment of at least the minimum amount is obligatory.[q] Sometimes the sinking fund provisions are a complex combination of several different requirements, but such cases are of interest only as abnormal variations from standard types and have little excuse in sound financial policy.[r]

Investment of Sinking Funds—Bonds.—In addition to the provision as to the amount of the payments, the whole question of the sinking funds has another important aspect: What shall be done with the reserves? A study made several years ago indicated that the administration of the sinking fund is left to the control of the corporation, except in the case of railroad bond sinking funds where the administration by a trustee is more common.[7] A more recent study of the sinking funds of public utility issues brought out since 1920 indicated that in the vast majority of cases the trustee was taking over the administration of the sinking fund. The most important question is, however, into what forms of securities shall the reserves be turned. Two methods are ordinarily available. In one, the sinking fund reserve is invested in the issue of bonds which are to be protected by the reserves; in the other, it is placed in some other form of property, either different bonds or else improvements in the physical property of the corporation.

---

[q] Thus in the American Sewer Pipe Company 6s of 1920 the minimum sinking fund payment must be $50,000 and the maximum $100,000. Between these limits the payment rested on the discretion of the company.

[r] An excellent example of such a complex sinking fund is that of the Pillsbury-Washburn Company 5s of 1928. It requires annually: (1) $30,000 after interest on bond issues; (2) $30,000 contingent from surplus profits over and above a certain rental of $100,000; (3) all surplus profits from "investments"; (4) one-half profit on certain securities; (5) one-half sums recovered by restitution proceedings.

The usual requirement for the investment of sinking fund reserves is that the bonds of the same issue be bought on the open market and canceled.[8] Sometimes the bonds are not canceled but are held by the trustees and interest collected upon them, the proceeds of which are used for additional bond purchases.[s] It is usually provided that the bonds to be acquired for the sinking fund may be purchased in the open market at the price specified in the bond as the call price, and further that if they are not procurable at the fixed price or lower, they may be called by lot.[10] It is important that the corporation or trustee be empowered to call the bonds or otherwise the holders may exact a high price, especially if the bonds are closely held.[t] And further it is important that the bonds

---

[s] The expression used for this provision is "the bonds are kept alive in the sinking fund." It was found that of the bonds purchased for a sinking fund, in the case of railroads 17 per cent, public utilities 26 per cent, and industrials 11 per cent were kept alive.[9]

The interest on the sinking fund bonds may constitute, in extreme cases, a larger fund than the actual sinking fund reserve itself.

[t] Sometimes when the bonds are not callable or callable only at an excessive premium, the sinking fund contract permits the purchase of other securities. Thus if the American Hide and Leather Company 6s, 1919, could be bought for the sinking fund at 115 or less, the trustee could acquire other securities for the sinking fund. Similarly it was provided in the sinking fund clause of the Auburn Gas Company's bonds that $5,000 should be set aside for the purchase of the bonds at a price to yield at least 3½ per cent on the investment; and if no high quality investments meeting this

---

[7] Kielland (*op cit.*) found that only approximately 25 per cent of the sinking funds of public utility and industrial bonds were administered by a trustee, whereas 70 per cent of the railroad sinking funds were so administered.

[8] For statistics see note (w).

[9] Kielland (*op. cit.*).

[10] See note (w).

be callable by lot, for otherwise certain holders may be discriminated against if the call price becomes less than the market price.

If the purchase of bonds of the same issue is not obligatory on the trustee of the sinking fund, the disposition of the sinking fund has to be described with considerable care. For this reason it is now somewhat unusual to allow the corporation or the trustee to invest sinking fund reserves in the securities of other corporations and such a policy is not easily defended. The purpose of the reserve is to increase the equity behind the outstanding bonds, and although the accumulation of an investment fund belonging to the bondholders may achieve this result, it is accomplishing the end indirectly. At all events it requires that great care be taken in selecting the investment securities into which the reserves shall be placed, in order that the integrity of the fund shall be at all times intact.[u] Bonds bearing a low rate of interest are usually chosen. In fact the rate is lower, probably, than that of the bonds for which the reserve is kept. This gives at least the appearance of unquestioned security for the sinking fund. As a result the corporation will receive less interest on the reserves than it pays out on the bonds the reserves are maintained to protect. Clearly this is not wise management of the sinking fund.

The corporation may sometimes use its sinking fund reserve to purchase some of its own bonds, or those of an allied corporation. Thus the sinking fund provisions of the general mortgage bonds of the California Gas and Electric Corporation requires the use of the sinking fund payments first for the

---

condition should be procurable, then the sinking fund reserves should be placed in other approved securities.

[u] In support of his construction that sinking funds, instead of serial payments, are bad for all bonds, Chamberlain cites the notorious case of the sinking fund for the retirement of the state of Mississippi's "Planter's Bank" bonds. In 1830 a sinking fund of $250,000 was started. By 1839 it had increased to $800,000, but within the next ten years it had dwindled to $100,000 through mismanagement, dishonesty, and the normal hazards of investment.[11]

---

[11] See Chamberlain, L., Principles of Bond Investment, 152, (1911). He cites a study in the *Bankers' Magazine,* 1863, entitled "Banking and Repudiation in Mississippi."

acquisition of the four small issues of subsidiary bonds. This is a method of strengthening refunding issues which is excellent, but not now common.

Use of Sinking Funds for Improvements.—In those cases where the purchase of bonds of the same issue is not obligatory on the trustee of the sinking fund, it is ordinarily provided that, subject to the approval of the sinking fund trustee, the corporation may use the fund to construct new property, or for improvements covered by the original mortgage. By increasing the value of the property beyond its normal depreciation the security of the outstanding bonds is correspondingly increased. Moreover, it is often possible for the management to make improvements in the mortgaged property so that the earning capacity of the corporation can be kept abreast of the advances in technical construction. In this way the equity of tangible property itself is increased and the equity of earning capacity as well. This use of the sinking fund reserves has only recently come into prominence, and is now almost without exception restricted to the sinking funds of large public utility open-end mortgage bond issues.[v]

The only objection to the practice is the possibility of flagrant abuse. There is a constant temptation for the management to confuse normal repairs and replacements, which should be offset by proper repair charges and depreciation reserves taken directly out of earnings, with improvements which may properly be paid for from the sinking fund reserves. This is conspicuously true of what may be called the "reserve for obsolescence." As was pointed out in a preceding chapter, a certain amount of the gross earnings should always be set aside to create a fund from which to buy new and improved equipment in order to maintain at least such efficiency as will keep the corporation abreast of its competitors. The cost of such improvements is a proper charge against earnings because they are necessary to maintain the full earning capacity of the corporate property. They are not additions to property in the sense of representing an increase of capital. Yet they are improvements within the strict common sense meaning of the term. Because of this confusion the management may consider these improvements within the provisions of the sinking fund requirement, and pay for them from the sinking fund reserves rather than from earnings or special obsolescence reserves created out of earnings. With this temptation ever present, it is inexpedient to permit the management to control the administration of the sinking fund. The interests of the management and the bondholders are frequently so divergent that there must be explicit and unequivocal definition of the rights of each, and for this the subtleties of accounting are too vague. Consequently the method of investing the sinking fund in the very bonds they are supposed to protect is to be preferred over the investment in property improvements.[w]

---

[v] An excellent example in a somewhat complicated form of the "improvement sinking fund" is provided by the mortgage contract given by the Kansas Gas and Electric Company to secure its First Mortgage Bonds, due 1922. On March 1, 1913, 1914, 1915, there was payable to a trustee in money an amount equal to 1 per cent of the outstanding bonds, from 1916 to 1918, 2 per cent, and from 1919 to 1921, 3 per cent. Should, however, the net earnings of the constituent companies equal or exceed three times the interest charges on all the outstanding bonds, during 1918 to 1921, then the annual cash improvement fund would remain at 2 per cent of the outstanding bonds instead of at 3 per cent. This cash improvement fund with the interest and other accumulations is to be held by the trustee and invested in betterments to the mortgaged property. By resolution of the Board of Directors, however, a portion of the improvement fund may be used for the redemption of the bonds.

Serial Bonds.—Closely allied with the method of preparing to redeem bonds during their life by means of a sinking fund is the method of actually redeeming them through the serial maturity of a part or the whole of the issue. This plan, by which a certain series of the bonds of an issue automatically matures each year, has been adopted universally for equipment

---

[w] The various methods of providing for the investment of sinking funds, were found by Kielland (*op. cit.*) to be apportioned as follows:

	Railroads	Public Utilities	Industrial
Require the purchase of bonds of same issue........	72%	68%	80%
Permit bonds of different issues of same corporation.	9	5	1
Permit outside securities........................	9	6	4
Permit investment in improvements to property....	10	21	2
Not explicit....................................	..	..	13

obligations and to a very large extent for timber bonds,[x] although it is much less frequently found among corporations[y] than among municipal bond issues. It occurs, however, with perhaps increasing frequency as its advantages are fully realized. These advantages, from the point of view of the corporation consist of the gradual cancellation of a part or the whole of the issue during its life, without the payment of a redemption premium, and a wide market for its bonds among both banks which buy short-term bonds and investors who buy medium- and long-term bonds. The advantage to the investor of the instalment bonds is the assurance that a part of the issue will be paid off before maturity without the complication and frequently equivocal administration of the sinking fund.[z] Also, owing to the wide variety of maturing dates, the investor has the privilege of selecting the time at which his bonds

---

[x] For details see Book I, Chapter VII.

For illustration, a large issue of $6,250,000 "timber certificates" was issued by the Kirby Lumber Company to cover the purchase from the Houston Oil Company, of over $20,000,000 of timber property occupying 790,000 acres. The transaction involved the initial payment or redemption of $415,000 certificates. The remaining $5,835,000 were to be gradually paid by the annual retirement of amounts varying from $100,000 to $725,000. It was intended to extinguish the entire issue in 1923.

[y] Besides equipment and timber issues, serial issues are used by manufacturing companies for their real estate mortgages, especially purchase money mortgages. For example, the Fore River Shipbuilding Company, a subsidiary of the Bethlehem Steel Corporation, issued in 1913 first mortgage bonds to the amount of $750,000 of which approximately $39,000 was to mature serially each year until the entire issue was extinguished. Friedlander[12] found that some 113 industrial bonds out of a random selection of 752 issued between 1920 and 1924, 15 per cent matured serially.

[z] A trustee will not insist on the sinking fund payment if its enforcement would jeopardize the solvency of the corporation. If, on the other hand, a portion of the bond issue falls due definitely each year, neither the corporation nor the trustee can avoid payment without precipitating a receivership. A very wholesome suggestion for preventing confusion has been made by a practicing accountant:

"As a believer in publicity and in full information being given to the public as to the financial conditions and requirements of all companies, as well as their operating results, I am in favor of appending to the income statement of any company under obligation to make periodical payments to a sinking fund, the amount of such requirements during the period covered by the income statement, in order that those interested may have a means of knowing, in a general way, what the fixed requirements of the company are as compared with its operating resources for meeting such requirements."[13]

---

[12] *Op. cit.*

[13] Ludlam, C. S., "The Treatment of Sinking Funds," 17 Jour. of Acc., 175 (March, 1914).

fall due. Another device, very uncommon but effectual, is that the corporation pay a certain sum each year toward the principal of each bond. In this way, each bondholder is paid a part of his claim before it is due, while the security behind the bonds remains the same.[aa]

Compliance With Sinking Fund Provisions.—A very important and serious question in connection with sinking funds is the extent to which a trustee is justified in instituting litigation in order to insist that sinking fund provisions be complied with. While the corporation is in a prosperous condition the sinking fund payments are punctually maintained. When the net earnings fall off, however, these payments are allowed to lapse, although the payment of interest is regularly maintained. In many cases the trustee is not aware that the sinking fund payments have lapsed as he would contend that he is not paid for maintaining elaborate checks on the corporations for which he acts. Even if he does notify the corporations of the default, he would hesitate to take official public notice of it. Such action would very seriously affect the corporation's credit. Further, if he should bring a bill in equity for the appointment of a receiver, as the covenants of the indenture frequently permit, he well might destroy the corporation's credit. Yet only by some such action could he force the payment of the sinking fund instalment—and even if a receiver were appointed, the court might not order the continuation of the payments.

The sinking fund is intended to strengthen the security of the bonds. A failure to meet its payments may or may not weaken the security. The public knowledge, however, of such a failure would inevitably depress the market price of the bonds; and court action to compel the payment would quite destroy any real market value, whatsoever the intrinsic security of the bonds might have been. Obviously, therefore, it is for the temporary interest of every bondholder—and often the permanent interest as well—that the trustee should ignore the default in the sinking fund—except for any feeble moral persuasion that may be brought to bear upon the officials of the corporation.

[aa] The New York Glucose Company, now a subsidiary of the Corn Products Refining Company, originally created, in 1901, an issue of $2,500,000 in order to build and pay for its plant. Attached to each bond was a warrant calling for the payment of 4 per cent of the principal amount of the bond on September 1 of each year, beginning in 1902. The bonds matured ostensibly in 1920, but at the maturity only 4 per cent remained unpaid.

This brief analysis indicates the slight real value a sinking fund provision amounts to from the standpoint of the investor. When the corporation is prosperous, and there is no real need for the protection of the sinking fund, its instalments will always be paid. When the corporation is not prosperous, and the sinking fund might afford the bondholders some additional protection, it is at least to the temporary advantage of each individual bondholder that the trustee should ignore or even encourage the lapse of the sinking fund payments. Thus do the elaborate sinking fund covenants, strongly featured in all bond circulars, give the investors a form of protection without the substance.

It will be noted that the line of separation between certain forms of sinking funds and serial redemptions is by no means clear. Thus if the sinking fund requires a certain large percentage of the outstanding bonds to be called and canceled each year, so that practically the entire issue is extinguished before maturity, there is little substantial difference between this and the serial maturity of specified bonds.[bb] The distinction then becomes merely one of the administration of the serial payments.

[bb] A good illustration of such a sinking fund, which amounts to all intents and purposes—barring corporate fraud—to the serial redemption of the bonds, is afforded by the sinking fund provision of the "Thirteenth Series" Collateral Trust 5 per cent Bonds of the Electrical Securities Corporation, a subsidiary of the General Electric Company. The bonds, dated 1913, due 1943, amount in all to \$500,000, par value and are issued under the provision that there be drawn annually by lot, the following:

\$10,000 par value, or 2% between 1918 and 1922.
\$15,000 par value, or 3% between 1923 and 1927.
\$20,000 par value, or 4% between 1928 and 1932.
\$25,000 par value, or 5% between 1933 and 1942.
\$25,000 par value, or the remainder in 1943.

Through such retirement, \$475,000, or 95 per cent, of the issue will be paid before the maturity of the bond issue. See also Book I, Chapter V, note o.

In the case of civil loans, the serial method of amortization is gradually superseding the use of sinking funds. From every point of view the civil serial loans are to be preferred over loans protected by a sinking fund.[cc] They are cheaper for the state or municipality, because they do not involve loss of interest on the securities carried in the sinking fund; [dd] they are sounder for the investor and the municipality alike because there is no opportunity for the secret manipulation of the sinking fund,[ee] and no complex problems of accounting arise.[ff]

The Sinking Fund and Permanent Debt.—Connected with the practical problem of the accumulation of a special reserve fund during the life of the bonds, is the deeper and more economically significant problem of whether or not it is sound financial policy to attempt to prepare for the payment of bonds before they are due.

This problem arises from a changing attitude on the part of corporation directors toward debt. There was a period in our industrial development when corporate debt was regarded as a transitory liability to be subsequently erased. The early railroads were built with stock subscriptions and were bonded only as a last expedient when money could be obtained in no other way. In many instances their directors stated explicitly that the debt was placed on the road only as an emergency measure, and as soon as the line was completed the bonds would be paid. In accordance with this theory, most of the early railroad mortgage bonds were issued with sinking fund provisions, so that a portion of each year's earnings would be devoted to the task of bringing the road out of debt. This view is now obsolete. Except among New England financiers, accustomed to the traditions of local manufacturing and lighting companies, the financial world has overcome its distrust of permanent debt. There is, subconsciously at least, the firm conviction that when one issue of bonds matures another one will be issued and sold to take its place. In other words, corporation directors now regard the corporate debt as permanent. This point of view is based on the presupposition of the continued economic productivity of corporate property and on the implication that debt is based more on intangible credit than on physical property.

[cc] The growing disposition to use the serial method has been due largely to an able and influential monograph prepared by Alfred D. Chandler—"The Metropolitan Debts of Boston and Vicinity. Sinking Fund and Serial Bond Methods Compared." This monograph was printed by the town of Brookline, Mass., in 1905. All students of the methods of payment of civil, and even corporate, loans should familiarize themselves with this study. A brief discussion is found in Chamberlain, L., The Principle of Bond Investment (1911). *New York Times Annalist* (Mar. 27, 1911).

[dd] Chandler prepared an elaborate study to prove this. Assuming that the municipal loan bears 4 per cent and that the sinking fund instalments can be invested at 4 per cent the saving of the serial bond plan amounts to approximately 4 per cent for the entire period of 20 years. In case the instalment can be invested at only 3 per cent, the saving is over 11 per cent. For bond issues of longer maturity the saving is proportionately greater. See previous note.

[ee] This is very important in large state issues, where, very frequently, the sinking fund trustee merely acquires new bonds of the state so that the net debt is undiminished by the operation of the sinking fund. New York sinking funds have been manipulated in this manner.

[ff] It often happens that there is a miscalculation, and the bonds fall due without adequate provision having been made for paying them. Several years ago, it was discovered that the sinking fund accounts of the smaller towns in Massachusetts were in confusion owing to the apparent incompetence of the town treasurers. The matter was taken in hand by the state. What was found to be true of the smaller Massachusetts towns is probably true in other localities where there is no supervision over town loans by someone familiar with the underlying principles for calculating sinking funds.

The investor in corporation bonds, much as he may dislike the idea of permanent debt, does not care when his bonds mature so long as the corporation fully maintains the earning power of the property securing them. If this is done, the corporation managers consider themselves justified in assuming that there is no need of paying the corporate debt except when secured by assets which necessarily decline in value or amount. As stated in connection with the previous discussion of long-term and irredeemable bonds,[14] the policy of permanent debt is vicious, if based on the presumption of the indestructibility of physical property. Yet if based, confessedly, on the permanence and integrity of a corporation's credit structure, it has a good moral influence as giving a larger body of security holders an abiding interest in the permanent welfare of the corporation. It is, further, the tacit acknowledgment that the fundamental security of corporate obligations is the continued earning power of property rather than its original cost.

---

[14] Book I, Chapter IV, page 98.

CHAPTER IX

THE VOTING TRUST

The voting trust[1] is an administrative device sometimes employed to maintain the executive or financial control of a corporation. By this device men owning little or none of the stock are able to control, absolutely, the policy of a corporation. It is essentially an administrative expedient for giving a publicly responsible management to a corporation, when —because of low intrinsic value or for other reasons—the real owners of the stock cannot be counted upon to take the trouble necessary to elect a board of directors which will work for the permanent welfare of the corporation.

Origin and Essential Characteristics.—The voting trust invariably rests, no matter what its origin, on the desire to separate the voting and controlling privileges of stock ownership from the other rights. The device is of quite recent origin, the earliest case of which the writer can find any specific record being that of the Pacific Mail Steamship Company in 1864.[2] The earliest railroad voting trust at all analogous to its modern form was that of the Atlantic and Great Western in 1868. The road, after numerous reorganizations, is now an integral part of the Erie system.[3] A few voting trusts were established in connection with the railroad reorganizations following the panic of 1873,[a] but they came into general use only with the reor-

---

[a] For example, St. Louis, Iron Mountain and Southern, 1875; Pittsburgh and Lake Erie, 1877; Mobile and Ohio, 1879 (the certificates were called "special stock"—certificate reproduced, Cushing, H. A., Voting Trusts, 167 [1915]); Texas and Pacific, 1880. As in many other aspects of railroad

---

[1] The most exhaustive and scholarly treatment of the voting trust is that of Cushing, H. A., Voting Trusts, A Chapter in Recent Corporate History (1915). Much of the illustrative material cited in this chapter has been derived from this study. Many original documents covering the formation, extension, and termination of voting trusts are reproduced as appendices. For other references, see 13 Yale Law Jour.

[2] Litigation was involved. For details, see Brown v. Pac. Mail S. S., 5 Blatch. 527 (1867).

[3] For another reference to this unfortunate road, see Book V, Chapter VI, note (c).

ganizations of the middle nineties. A voting trust is now, almost invariably, a part of every contemporary railroad and public utility reorganization and is present quite generally in industrial reorganizations. It is also widely used in connection with promotions, when the promoters part with a majority of the shares of the corporation and yet desire to insure their continued control of its management.

Because of the essential purpose of voting trusts in separating the voting from the other rights inherent in stock ownership, the courts in certain states have frowned upon them as contrary to the intent of stock ownership on the one hand and contrary to public policy on the other. Although possibly these grounds of attack are technically justifiable, the advantages and often the necessity of the voting trust agreements have become so apparent that their legality must be admitted in the light of modern financial necessities. Indeed, the usefulness of the voting trust is so clearly recognized that two states have enacted statutes permitting its existence.

Voting trusts are created when the holders of a substantial part, usually at least a majority, of the stock of a corporation transfer their stock to certain trustees, receiving in exchange voting trust certificates. These entitle their holders to all the privileges of stock ownership, except that of voting. Any dividends or other emoluments which the voting trustees receive are immediately turned over to the holders of the certificates. In the intent, the stockholder surrenders all control over the corporation to his trustees, who are "entitled

---

financial history, the varied experiences of the Erie Railroad and its predecessors afford a most fertile field of illustration. Beginning in 1877 in the second reorganization of the main Erie system down to the last reorganization, and including the reorganizations of its various subsidiaries, the voting trust has been used in a variety of forms and has been the source of much litigation. See Daggett, S., Railroad Reorganization, Chap. II (1908) for references to sources.

For statistical summaries, see Daggett, S., Railroad Reorganization, 382 (1908).

Notably North Carolina and New Jersey.

See Greenhood, E., Public Policy, 502; also Bache v. Cen. Leather Co., 78 N. J. Eq. 484 (1911).

New York and Maryland. The statute of the former state is reproduced in full, Cushing, H. A., Voting Trusts, 118-119 (1915).

to exercise all rights of every name and nature, including the right to vote for every purpose and to consent to any corporate act."[4] In view of these large powers conferred on the voting trustees, their privileges are frequently circumscribed in the trust agreement,[5] although the real—in actual practice the only—safeguard of the stockholders is in the moral integrity of their trustees. It is, in the end, a means of centralizing responsibility and accountability.

Three Chief Purposes.—A voting trust is ordinarily
created for one of three purposes. It may be created by law 1
in order to carry out a judicial decree, requiring a definite action
on the part of the stockholders. It may be created by a certain
group of men who control a majority or more of the stock of a 2
corporation to continue their own control, or what amounts to
the same thing, to prevent the control from passing into un-
friendly hands. And, thirdly, it may be created by stockholders
of an embarrassed or reorganized corporation to insure for 3
themselves a permanently responsible management which shall
protect and conserve the interests of all. This is the com-
monest case. Stockholders of reorganized corporations
generally delegate the management to a group of voting trus-
tees chosen from or by the banking interests, or general reor-
ganization committee. These are men who, in all probability,
were the managers of the reorganization syndicate or were
men who otherwise insured the consummation of the reorgan-
ization plan.

To Carry Out Judicial Decree.—There is but one notable case of the first use, and that as recently as the autumn of 1914. Rather than endure a government dissolution suit, the directors of the New York, New Haven and Hartford Railroad permitted the United States District Court for the Southern District of New York to enter a "dissolution" decree involving the appointment of three sets of five voting trustees. One group assumed the voting control of the New Haven road's Connecticut traction lines, the second group that of the Rhode Island traction lines, and the third group the New Haven's interests in the Boston and Maine Railroad. These three groups of voting trustees held their positions as officers of the court, for the purpose of effecting a settlement of the New Haven system's entanglement. They might be called liquidating trustees as their power of control had, as its ultimate purpose, the sale of these various assets to interests independent of the New Haven road. The case might be passed over as exceptional and of little consequence, were it not for the fact that the trustees were appointed by a United States court, thus giving a judicial and federal sanction to the principle of voting trusteeship.

---

[4] Quotation taken from the voting trust agreement of the General Motors Company. Reproduced, Cushing, H. A., Voting Trusts, 153 (1915).

[5] Four typical voting trust agreements are reproduced in Cushing, H. A., Voting Trusts, 136-160 (1915). The well-known voting trust agreement of the original International Harvester Company is reproduced in full in Gerstenberg, C. W., Materials of Corporation Finance, 91 (1915).

To Insure Control.—The second case is relatively common. A group of men possessing either actual or nominal control over a majority or all of the stock of a corporation wish to perpetuate their control without tying up the amount of money necessary to hold a majority of the shares. To accomplish this end they transfer to themselves or their associates a majority of the stock in trust, and the trustees then reissue to them voting trustees' certificates which are sold as the stock. It very often happens that there is outstanding at the same time a minority of actual stock, regularly transferable on the books of the company, and a majority interest of voting trustees' certificates which are transferable on the books of the voting trustees. Ordinarily, because both minority and majority are equally benefited or equally at the mercy of the voting trustees, the two types of securities are quoted at the same market value.

There are many reasons which may lead the holders of a majority of stock to tie up their control. The commonest is that of personal or business ambition or jealousy. The company is too large for certain men to hold in their own hands a majority of the stock, yet they deem it necessary to exercise a majority control. Such was the case of the voting trusts of the Bankers Trust and Guaranty Trust companies of New York. Such have been the purposes of the voting trusts of the smaller local manufacturing companies when such have been created. The case of the banking voting trusts is peculiar because of the value of control for ulterior purposes—as, for example, the use of bank deposits for specific enterprises or for a refuge in case of financial distress. Again, the larger stockholders may be jealous of each other and unwilling to allow the control of the company to be in jeopardy, so that they establish a community of interests in which no one faction is dominant.[b] In a few cases voting trusts are created for the convenience of foreign security holders. Sometimes, too, a voting trust may be employed as a means by which a scattered majority may defend itself against a centralized and aggressive minority.[6]

There are a number of cases on record in which voting trusts are created for the convenience of foreign security holders. To accomplish this French or Dutch bankers have large blocks of stock registered in their name and in turn issue their own certificates for local circulation. There is an instance of this kind involving a double voting trust, as one might say. The Oregon Railroad and Navigation Company's voting trust agreement provided that practically all the stock was held by the Central Trust Company of New York, which issued the usual voting trust certificates. Some of these certificates were then deposited with the Deutsche Treuhand-Gesellschaft of Berlin which in turn issued its own certificates for local circulation in Germany. Cases like this have been rare, in the past, but with the increasing investment of Americans in foreign securities it is quite likely that a corresponding device will be used by American bankers to secure a wide distribution of individual foreign securities.

---

[b] Of the three voting trustees of the International Harvester Corporation, two represented the two largest competitors—for a generation antagonistic to each other—and the third was a representative of the bankers who supplied working capital.

---

[6] See Bridgers v. First Nat. Bank, 152 N. C. 293 (1910). In this case the bank had lost public confidence because of the rumored control by one man and its deposits were declining. The scattered majority joined together and adopted the voting trust as the best way of publicly asserting their control through responsible representatives.

In Reorganization.—Distinctly the commonest and most reasonable use of the voting trust is that in connection with the reorganization of a bankrupt corporation. This is excellently expressed in one of the earlier reorganization plans when it proposes a voting trust: "To assure continuity in the management of the new corporation for a sufficient number of years during which the improvements and developments of all the properties of the United States Shipbuilding Company and the Bethlehem Steel Company are to be undertaken and completed." [7]

At such a time the creditor interest represents a far greater actual investment in the corporate property than does that of the stockholders. The latter is merely the shadow of an equity of unsubstantial value. This stock is quoted at a low figure and is held largely by speculators and stockbrokers, who have little or no interest in the permanent welfare of the corporation. Yet, because of their voting power, these stockholders exercise an absolute control over the property. They can destroy the substantial value of the creditor interests without losing much themselves. A clever speculator can acquire control with little real investment and thus jeopardize not only the large interests of the bondholders but also impede or even seriously embarrass the recovery of the company. This is clearly and succinctly expressed by a sentence from the Southern Railway Voting Trust Extension circular. "The certificates for actual Preferred and Common Stock of the Company would thus be issued and dealt in in the market, making it possible for the control of the Company to be bought and sold from day to day and rendering its policy and management subject to sudden and surprising change." [c]

---

[c] How easy it is for a man with a definite plan and perseverance to secure control of the common stock of a non-dividend paying corporation is illustrated by the tactics followed by E. H. Harriman.

About 1898 Harriman was seeking to insure control of the Southern Pacific Company, the common stock of which was yielding no dividends and selling at a relatively low price. The stock traded in by the Wall Street speculators was mostly in the names of brokerage houses, and passed from

---

[7] Quoted by Cushing, H. A., Voting Trusts, 16 (1915).

To prevent this, the bondholders and the minority stockholders, or committees and representatives of these interests, arrange that the common stock and often the preferred as well shall be placed in a voting trust to be controlled by three or five men well and honorably known in the business world. As a result, all interests are protected by men whose responsibility for their trust is publicly acknowledged and who know that the success or failure of the new corporation will be laid by the general public directly upon them. Their reputations are at stake. As Cushing well expresses it, "The result of the normal voting trust has been to insure to a company both stability and continuity of policy, simple features which are often of substantial material advantage to the concern and to all its stockholders. It provides certainty of really responsible management. It makes impossible any disturbing attempts at interference by minority stockholders, which is a reasonable and practical consideration to be recognized frankly and at times properly. It concentrates on a small group the duty of putting a concern into satisfactory condition, giving them both the legal power and the moral obligation to make a real effort to that end. It makes it possible for those in control to formulate a well-considered program for the conduct of the business with the assurance that they may remain unhampered until the wisdom or futility of their plans has been demonstrated."

Restriction of Trustees' Powers.—The advantages to all concerned of a responsible management which is publicly held accountable for its trust are too obvious to require comment. But the development of the conception of public responsibility has been of slow and recent growth, and with it has come a

---

hand to hand as sales were made. No one took the trouble to have the stock transferred as the stock paid no dividends.

Edwin Hawley was then one of Harriman's lieutenants. He made the rounds each day of several large brokerage houses and borrowed all the Southern Pacific that had come in. This was then transferred to names friendly to Harriman's interests and then returned to the brokerage houses. Gradually, all the floating supply of the stock had been transferred to these names, thus giving to Harriman the voting control over these shares.

demand for a clear and unequivocal definition of the powers and responsibilities which the voting trustees assume. The early voting trusts were usually created without restrictions on the trustees. Their powers were those of absolute owners of the stock so long as they were in control.[d] Gradually, however, as the practice became more frequent, it became common to circumscribe the powers of the trustees by restrictions contained in the original voting trust agreement.

The most frequent form of restriction is that of the limitation of subsequent issues of bonds or stocks.[e] By such limitations the original security holders are protected against the emasculation of their lien through the overexpansion of the company on borrowed capital. Less usual, but by no means uncommon, are the restrictions controlling the sale of the stock, or the consolidation of the corporation with others. When circumscribed by many restrictions, the voting trustees

---

[d] Cushing, H. A., Voting Trusts, 98 (1915).

A good example of one of these early voting trusts in which the trustees had restricted powers, was that of the voting trust of the old St. Louis, Iron Mountain and Southern Railway (1875), in which Baring Brothers and Company were vested with an absolute but temporary control of the road through the assignment to them of large blocks of the stock.

[e] Thus in the Chicago Great Western Railway voting trust agreement —reproduced as an appendix in Cushing, H. A., Voting Trusts, 146 (1915) —it is provided that "The voting trustees, however, during the continuance of this agreement, shall not vote said stock to authorize or consent to any mortgage upon the property of the Company acquired under the aforesaid plan of reorganization of the Chicago Great Western Railway Company, to secure any bonds or indebtedness other than the First Mortgage Fifty-Year Four Per Cent Gold Bonds of the Company described in the preamble to this agreement, and shall not vote to authorize any increase in the amount of the authorized preferred capital stock of the Company, except in each instance with the consent in writing of the registered holders of stock trust certificates calling for a majority in amount of the preferred stock of the Company at the time outstanding." Similar restrictions are to be found in the Reading, Northern Pacific, and other notable voting trust agreements formed in connection with the railroad reorganizations of the middle nineties. More recently the limitation to the issue of superior liens has been even stronger. The voting trust agreement of the Allis-Chalmers estopped any mortgage on the property without the consent of 80 per cent of the preferred stock outstanding. To secure the consent of 80 per cent of the preferred stockholders for the issue of a lien superior to theirs has been shown in the United States Leather case to be practically impossible.[8]

---

[8] Quart. Jour. Econ. 85.

are merely the agents of the stockholders, their authority being limited to certain clearly defined lines of action.[f]

---

[f] A modern voting trust agreement specifically defining the powers of the trustees is excellently illustrated by that of the South Carolina Western Railroad, a small divisional line subsequently acquired by the Seaboard Air Line.

"No. 474 16 16 Shares

"SOUTH CAROLINA WESTERN RAILROAD

STOCK TRUST CERTIFICATE

"THIS CERTIFIES That, as hereinafter provided and on surrender hereof *John Jones* will be entitled, out of certificates delivered to the undersigned Voting Trustees under the agreement hereinafter mentioned, to receive a certificate or certificates for *Sixteen* shares of one hundred dollars ($100) each of the capital stock of South Carolina Western Railroad, unless said stock shall have been sold as provided for in said agreement, and in case said stock shall have been sold then the proceeds thereof as provided in said agreement, and in the meantime to receive payments equal to the dividends, if any, collected by the Voting Trustees upon a like number of such shares of stock received and held by the Voting Trustees under said agreement. No voting right passes by or under this certificate or by or under any agreement, express or implied, it being expressly stipulated that until the actual transfer of such stock certificates to the registered holder hereof the Voting Trustees shall possess and shall be entitled in their discretion to exercise in respect of any and all of such stock the right to vote thereon for every purpose, and to consent to any corporate act of said railway as provided in said agreement, but the Voting Trustees will not vote said stock to authorize the creation of any mortgage additional to the First Mortgage dated August 1, 1910, upon the property of the Railway, or to authorize any merger or consolidation of the Company with any other company, or to authorize any increase of its capital stock, except in each instance with the consent of the registered holders of stock trust certificates calling for a majority in amount of the stock of the Railway at the time outstanding.

"This certificate is issued pursuant to an agreement lodged with the Knickerbocker Trust Company, Depositary under said agreement, and agent for the Voting Trustees, dated August 26, 1910, defining the rights of the holder hereof and the duties and liabilities of the Voting Trustees and the parties hereto. . . . Said agreement contains provisions whereby the stock subject thereto may be sold free and clear from the provisions of said agreement pursuant to the option therein mentioned at any time within three years from the date of said agreement at 125 per cent of its par value and at any time within three years thereafter at 150 per cent of its par value, and at any time within said period of six years may be sold for a less amount, with the consent of the holder of said option, and of the registered holders of stock trust certificates calling for a majority in amount of stock of the Railway at the time outstanding. No stock certificates shall be deliverable hereunder before August 1, 1920, but a majority of the Voting Trustees in their discretion may, subject to the limitations of said agreement, make earlier delivery upon not less than sixty days' notice. Upon any sale of the stock certificates subject to said agreement as above mentioned the Voting Trustees will make immediate delivery of the proceeds thereof as provided in said agreement."

Termination.—Ordinarily, voting trusts terminate after a specified number of years, five commonly,[g] or after a certain event or combination of events has happened. This event is usually the declaration of one or more dividends on the stock,[h] the assumption being that when the financial condition of the company has improved to such an extent as to justify the declaration of a permanent dividend, then the dangers which the voting trust was created to prevent no longer exist.[i]

Sometimes the voting trustees voluntarily relinquish their trust when they feel "that the purposes of our trusteeship have been fulfilled and that we are warranted in now dissolving the trust";[10] but ordinarily the trust extends until ended by limitation. Frequently it is extended longer by the consent of a majority of certificate holders.[11]

Legal Status.—In the range of financial matters connected with corporate concerns few are subject to such conflicting legal opinions as voting trusts.[12] Two states have records of

---

[g] The customary selection of this period is attributed by Cushing to a provision of the New York statute limiting voting trusts to five years.[9]

[h] Stated as follows in the notice of the termination of the Reading voting trust: "On the first day of January, 1902, if then the Reading Company for two consecutive years shall have paid four per cent per annum cash dividend on its First Preferred Stock, and, if not, then so soon as such dividend shall be paid, and upon surrender of any stock trust certificate then outstanding, the Voting Trustees will, in accordance with the terms thereof deliver therefor corresponding proper certificates of stock of the Reading Company."

On June 15, 1904, the Board of Directors of the Reading Company declared "a dividend of two per cent upon the First Preferred Stock, payable September 9, 1904. The payment of this dividend, being the second dividend of two per cent paid during the year 1904, two dividends of two per cent each having been previously paid, during the year 1903, fulfils the condition limiting the period of the Voting Trust as above set forth, and it, therefore, becomes the duty of the Voting Trustees to arrange for the delivery of stock of Reading Company in exchange for the Voting Trustees' certificates now outstanding."

[i] An extended and elaborate discussion of the various conditions of termination of voting trusts is given by Cushing, H. A., Voting Trusts, 52-78 (1915). And a variety of original documents in connection with the termination are given as appendices. *Ibid.*, 190-214.

---

[9] Cushing, H. A., Voting Trusts, 20 (1915). Cushing cites, at the same time, examples of longer voting trusts.

[10] Statement by trustees at termination of Northern Pacific voting trust.

[11] For original documents in connection with the extension of voting trusts, see Cushing, H. A., Voting Trusts, Appendix, 170-184 (1915).

[12] For elaborate discussion of the Law of Voting Trusts, see Cushing, H. A., Voting Trusts, Chap. III, 100-134 (1915).

judicial opinions forbidding voting trusts. The more extreme is North Carolina, where apparently every form of voting trust, whatsoever the provocation, is illegal.[13] Even a voting trust to protect the reputation and maintain the deposits of a bank was declared illegal.[14] In New Jersey the attitude of the courts is not so extreme. While adhering to the general position that the creation of a voting trust separable from the actual ownership of the stock is "a gross violation of the public policy of this state,"[15] yet the courts of that state have repeatedly admitted that a voting trust may be justified in the light of public welfare. If the interests of the public are clearly and unmistakably served through the creation of the trust, it should not be set aside on grounds of mere legal technicality.[16] This technicality rests usually upon the presumption that voting power is an inherent characteristic of stock ownership and cannot be separated from it.[17] Yet in the voting trust the trustees become the legal owners of the stock and the holders of the certificates are, strictly, merely the beneficiaries of a specific trust, the conditions of which they themselves have either created or complied with. Aside from this technical[18] objection, the courts of most states outside of North Carolina and New Jersey have accepted the voting trust as a means of expressing, in a responsible manner, the will of the majority. And unless the trust itself or the conditions under which it was created are unjust or clearly contrary to public policy, they have showed every disposition to interpret the voting trust as an entirely legal means of accomplishing the will of the majority. As already mentioned, two states, New York and Maryland, have enacted statutes which legalize the voting trust and prescribe conditions under which it may be created, and the federal court has itself resorted to this means in the case of the disintegration of the New Haven system.[19] Clearly the whole tendency of the times is to concede to the voting trust, when rightly used, a legal and social usefulness.[j]

---

[13] "All agreements and devices by which stockholders surrender their voting powers are invalid." Harvey v. Linville Improvement Co., 118 N. C. 693 (1896). The same view was again expressed with no less generality in Sheppard v. Rockingham Power Co., 150 N. C. 776 (1909).

[14] Bridgers v. First Nat. Bank, 152 N. C. 293 (1910).

[15] The now leading case of Bache v. Cen. Leather Co., 78 N. J. Eq. 484 (1911).

[16] See particularly the discussions in both the majority and the minority opinions of Warren v. Pim, 66 N. J. Eq. 353 (1904).

[17] This presumption is supported, historically, by the early English corporate franchises.

[18] There is another ground upon which voting trusts have been declared illegal by the courts--restraint of trade. See an early case, Fisher v. Bush, 35 Hun 641 (1885), and, later Clarke v. Cen. R.R. & Banking, 50 Fed. 338 (1892).

Value.—Clearly, too, its use is expedient. In large corporations the privilege of voting is purely theoretical. Few of the hundred thousand odd stockholders of the United States Steel Corporation, or even the thousand stockholders of a relatively small company, ever look into the affairs of their companies, and actually formulate individual opinions. Still fewer ever come to the annual meetings to express these opinions and to vote in furtherance of them. There is therefore no center of responsibility. The directors and officers can perpetuate their control through the inertia of the great body of stockholders. The voting trust centers the actual responsibility in three or five men whose control is a matter of public knowledge. They cannot shift it. Nor have they generally in the past abused their authority.[k] In the case of large railroad voting trusts their policies have been invariably wise and judicious. As a writer in the press put the matter, "in every instance prior to the reorganization of the property, the bankruptcy of the road had been due to faulty management, and it was impossible, in working out the reorganization, to secure the co-operation of the bondholders and of the stockholders (who, in the latter

---

[j] An interesting instance of the use of the voting trust to evade the law is provided in the case of the old stock of the Central Pacific. The American management wished to maintain control, and the foreign shareholders wished to avoid the liability involved in having the stock registered in their names. Accordingly the stock was transferred to irresponsible dummies who indorsed the certificates in blank and surrendered them to English and foreign holders. These certificates bore coupons so that the foreign holders could collect the dividends directly. At the same time the dummies issued voting proxies to the directors.

[k] There are rare exceptions—as, for example, the voting trustees of the Kansas City Southern Railway, during their administration from 1900 to 1905.

---

[19] See page 619, at the beginning of this chapter.

instance, were frequently compelled to pay heavy assessments) unless some warranty were given to these security holders that their created 'child' should be looked after by men of character until it outgrew its swaddling clothes. The only way to obtain such a warranty was to persuade men of ability and character to give their names to the enterprise as voting trustees of the stock for the initial period of years." [20]

---

[20] *New York Evening Post,* December 21, 1912

Mr. Gordon Crandall
986 So Main St
Springville, Ut.

BOOK IV

EXPANSION

CHAPTER I

UNDERLYING MOTIVES AND PROBLEMS

The Question of Expansion—Fundamental Problems.—A business corporation is either a success or a failure. Although a business may maintain, for a considerable time, a quiet existence showing no outward change, yet in the long run an observer will see clearly that it has gone either forward or backward. Many corporations go down-hill very rapidly and become failures within a few months after their promotion. The failure of the old United States Shipbuilding Company, now the Bethlehem Steel Corporation, followed so quickly after its promotion that it is difficult to say that the company had any real existence of its own. In other instances the causes of disaster take longer to operate and may not precipitate failure for several years. The causes behind the failure of the International Steam Pump Company in 1914, for example, were present from the organization of the company in 1899, yet by the aid of a bond issue and less obvious palliatives they were obscured from the outside until the autumn of 1913.

These same observations may be made regarding the causes and conditions leading to the success of a corporation. There is, however, this difference: as the first few years of a corporation's existence are devoted to organization and to establishing a place in the trade, pronounced success is not likely to show itself so early as pronounced failure. Yet in the long run it is just as evident as failure, although the consequences may not, perhaps, be so dramatic. The remarkable but sporadic success which certain manufacturing companies obtained through foreign orders for munitions soon after the outbreak of the Great War is not an exception to this rule. The success in most cases was only apparent, not real, and vanished even before the contracts were executed. The vast majority of those corporations which profited greatly by the war were already successful or else had developed a highly efficient productive organization before the war.

There are two fundamental problems in regard to business expansion which require careful consideration. These are the problems of organization and of finance. The directors of a corporation who find themselves embarrassed by an increasing volume of business or are tempted by the prospects of larger profits through a larger business must plan the form and structure of their enlarged organization. It is important to note that the form of business organization that is suitable for a small business is not suitable for a large business of the same kind, and that the same form of organization is not suitable for all kinds of large businesses. But besides establishing the general lines the business organization and corporate structure must follow, the directors of an expanding business must determine the sources whence they may derive the new capital required by their enlarged activities. A large business requires a great deal more capital than a small one, and the various means by which the increased capital may be obtained must be canvassed with a broad and far-sighted vision. A blunder in the method of obtaining the new capital would jeopardize the success of the expanded business. The financial structure of a large business, though different, must be no less sound than that of a small business.

Motives Leading to Expansion.—Four main motives have led men to expand business enterprises. On the whole they are not economic, but rather psychological; they are the motives incident to the struggle for conquest and achievement—the precious legacy of man's "predatory barbarism." All motives for expansion, whatsoever the field of human endeavor, from the expansion of a man's backyard to the expansion of a nation's empire, arise out of the preconception that there is increased value, excellence or strength in increased size. In the narrower sphere of individualized business, the world—or as much of it as records the reputation of a business and the man who guides its destinies—measures the success of a corporation by increased size, and secondarily by increased profits.

Ambition.—The most powerful motive that leads a man to expand a business is the illusion of valuing himself in terms of his setting. The bigger the business, the bigger the man. A man prefers to direct a large business rather than a small one; just as the borough president seeks the mayoralty and the mayor, the governorship. He likes to feel himself of influence in the sphere of his activity. The business executive likes to be somebody, to occupy a "place in the sun" in the business world.

This motive is much more fundamental than is usually realized. A man who operates successfully a corner drug store may be content with the business as it is, provided he finds the field of his primary interests outside of his business—home, sport, or an avocation. In such a case, which is common, the business is an insignificant means to an end. It is not a part of the real life of the man, but merely an attendant circumstance in the problem of extracting a livelihood out of a competitive and unsentimental world. But such men are not true business managers in the sense that the economist uses the word "manager" or "entrepreneur." Their field of achievement is not business. Men who can be even broadly classified as business managers and who value success in productive enterprise as something worth while in itself—rather than as an insignificant means to a greater end—want their business undertaking to bear the outward signs of successful achievement. Increasing size is the most obvious of these signs. The race-old instinct of conquest becomes translated in our twentieth century economic world into the prosaic terms of corporate growth. Business expansion is the spirit of a modern Tamerlane seeking new markets to conquer. Small businesses are merely the pawns for human ambition in the game of business expansion.

Creative Impulse.—The second motive, less significant, one is led to believe, is the creative impulse. A business manager has an aversion to stagnation; he wishes to be constructive. He wishes to make actual the vague images of progress. The only field with which he is familiar is his business, and in the fortunes of his business he sees the realization of his hopes and his ideals. It is a commonplace of psychology, current since the brilliant introspective studies of the elder Mill and Reid, that somewhere in the mental structure of all of us lies the impulse to build, to see our ideas take form in material results. The impulse to build is at the same time an important element in inventive and artistic genius and in skilful craftsmanship. The particular form in which this impulse finds expression is, among men of ordinary ability, a matter of accident. And the particular form close at hand to the business manager is his business. A distinguished business manager, at sixty-nine years of age, to whom wealth had ceased to have a significance, was heard to outline in detail for an already well-rounded and world-wide business, steps in reconstruction and enlargement which would ordinarily take a lifetime to achieve. An expanding business affords a sphere for the kind of creative expression that is demanded by the industrialism existing in this twentieth century of ours.

Profits.—The third motive is economic. The writer's observation is that the vast majority of business men who plan enlargements, consolidations, and extensions of their business are not actuated primarily by the impulse to make more money, although they unquestionably place this motive uppermost when they need to present plans for enlargement to directors and stockholders. Since increased profits have so obvious and direct an appeal, and since no other motive can sufficiently justify the investment of other people's money, it is natural to place the motive of increased profits foremost. And it appears foremost in every business manager's mind when he attempts to justify a business policy which may have been in the first instance subconsciously prompted by less obvious and more basal motives.

Speculation.—The fourth motive is the satisfaction in taking speculative chances. Business managers like to be dealing with a future full of concrete uncertainties. They like to apply direct empirical tests to business policies, the results of which are at best uncertain. A successful business manager is invariably a man of imagination. Invariably the man of imagination revels in uncertainties. He is by nature a speculator —if we use the term in its broadest significance and without disparagement. The development of constructive plans partakes of the nature of a game. All men enjoy the game they think they can play.

Procedure of the Present Study.—Other motives undoubtedly influence the policy of business expansion in specific cases, but the four just outlined are, one is led to believe, the controlling motives. But it is not sufficient that business managers feel an inarticulate desire to expand and broaden their businesses. They must have and must put into execution definite and clear-cut policies; they must overcome obstacles—legal, financial, and economic. It is the purpose of this Book to discuss these.

We have before us for study the means, the conditions, and the results presented in business expansion. They concern themselves primarily with organization and finance. Subsequently in the succeeding chapters the purpose is to discuss the causes of failure and the methods of corporate reorganization —the problems resulting from adversity—and also how financial failure may be temporarily and permanently relieved.

It was pointed out in the opening paragraphs of this chapter that a business expansionist is presented with two sets of problems: the one, the problems of policy and methods of procedure; and the other, the problems of finance. In the following chapter an attempt is made to lay down a general rule to test the wisdom and economic expediency of business expansion. In the succeeding chapters different methods of expansion, extension, and consolidation are outlined as they apply to various types of business enterprises. In the last three chapters the financial problems incident to obtaining money for extensions are discussed in some detail, with special reference to the sources of new capital.

But throughout the entire study, it must be remembered that motives other than economic are at play, and the reasons for men's actions can but seldom be reduced to the simple prerogatives. The impelling springs of human action are difficult to fathom. As business managers are human beings, their solutions of the difficult problems of business expansion cannot be dissolved into economic elements nor forecasted in accordance with the canons of economic expediency.

CHAPTER II

THE LAW OF BALANCED RETURN

Statement of the Problem.—The central problem for a corporation contemplating the expansion of its business is the simple one of the effect on profits. It is merely the question whether the increase in the size will bring about a corresponding increase in the net profits—or enough of an increase to make the move worth while. It was pointed out in the preceding chapter that the motives leading corporate managers to seek the extension of their businesses are fundamentally personal—the direct result of a personal ambition turned toward business enterprise; nevertheless they justify all plans for business extension by the simple economic sanction of increased profits. It behooves managers of corporate enterprises to consider well the question whether the enlarged business is going to be more profitable than the smaller business. It does not always pay to expand. In fact there is probably no other one policy which brings disaster to the old-established business more often than the putting into practice of the fallacious principle that profits necessarily expand as the business expands. Net profits do not always increase proportionately to the volume of gross sales, and if the increased volume is made with the help of large borrowings it is even less certain that the balance remaining after charges will be proportionately larger.

It is the purpose of this present chapter to discuss a simple, inexact, but effective rule for distinguishing between those kinds of enterprises which are obviously susceptible of profitable expansion and those which are not; a working rule, moreover, which indicates the point at which expansion of any kind of business ceases to be profitable. It has been called the "law of balanced return." [1]

---

[1] This chapter is a reproduction and condensation of a study printed elsewhere. Dewing, A. S., "The Law of Balanced Return," 7 Am. Econ. Rev. 755 (Dec. 1917).

Law of Diminishing Returns.—For many years English students of economic theory have pointed out that the increase in the products derived from the cultivation of land is not always commensurate with the amount of labor and improvements expended on the land. A more intensive cultivation of a specific plot of land, a larger number of acres brought under cultivation, additional improvements, more and better farming tools, a more liberal use of fertilizers, do not always, in the strict business sense, pay. Even in the United States, where farming has been carried on in a slipshod manner—always, however, with an economy of hired labor—the farmer understands that a more careful and economical cultivation of land is not warranted because of the prohibitive increase it would bring in costs of labor. As formulated by the English economists, long ago, there was a point in the intensive cultivation of land beyond which additional equal investments of labor and improvements did not bring equivalent returns in agricultural products. The returns from land diminished, relatively, as increases of capital and labor were invested in it. This principle, of far-reaching significance in the history of critical economic thought, is known as the "law of diminishing returns."

The law of diminishing returns was originally worked out in connection with agriculture. This was because agriculture constituted the great fundamental industry in the eyes of the English students of economic theory and because the conditions of agricultural production had remained unchanged for centuries. But it was soon discovered that the underlying principle could be extended to other forms of enterprise and that a decreasing rate of productiveness would be found by experience to pertain to other industries besides agriculture. It was noted, for illustration, that it took relatively little labor and very little equipment to catch fish near the shore. But if larger quantities of fish were required than the shore areas would afford, then

---

See also a very enlightening criticism by Mixter, C. W., 8 Am. Econ. Rev. 741 (Dec. 1918).

more labor and more equipment must be used to secure similar quantities of fish from greater depths. And the further one must go out to catch fish, the greater must be the expenditure and the greater the cost of the product; so that the relative quantity of fish obtainable from a fixed expenditure of labor and capital diminishes as the volume of the fish increases.

Furthermore, the same principle was observed to apply to all the so-called extractive industries, such as mining, lumbering, and quarrying. Ore dug from the upper layers of a mine cost less to procure than from deeper levels, and the deeper the workings the smaller the amount of product obtainable from a fixed expenditure. No matter how rich ore may be, there comes a point in depth beyond which it does not pay to go. The expenditure for labor and equipment equals or exceeds the value of the product. And though the price of the metal may be raised to absorb the increased cost of producing the ore—and thus render profitable the deeper workings of a mine—still the fact remains that sooner or later the cost of production will reach, and ultimately exceed, the value of the product. Lumbering operations return a product on a diminishing scale the further they are removed from streams and railroads; and although the timber on far mountainsides can be harvested—provided the price of the manufactured lumber is sufficiently high—the product is conspicuously smaller than that derived from using the same capital and labor to cut timber near streams. All this is merely objective evidence to show that in industries concerned with the production of raw products from nature—the extractive, in distinction from the manufacturing industries—a single principle obtains.

The law of diminishing returns—that the amount of the product obtainable from increasing investments of labor and capital in the exploitation of natural resources yields decreasing rates of product—says nothing regarding an increasing or a decreasing rate of profit to the business. It may be profitable, owing to the liberal prices obtainable for increased quantities of product, to continue to increase the size of a business long after it has become obvious that the rate of production is decreasing. But, on the other hand, the law of diminishing returns suggests at least the presumption that beyond a certain very moderate size the large business unit is relatively less profitable than the smaller one. Among the extractive industries it establishes a presumption in favor of the small business unit.

Scope of the Law.—Students of economic theory have restricted the application of the law of diminishing returns to agriculture and the extractive industries. And it must be admitted that the law, if such a name can be applied to a principle so vague and inexact, is best illustrated, empirically, by examples taken from these fields of industry. This is evident. It requires no wide knowledge of agriculture to observe that to double the labor, or to double the fertilizer, does not necessarily mean a double crop of potatoes or wheat or mushrooms. But another question, much more difficult to understand, is whether or not the principle of diminishing returns with increasing size applies to other businesses than agriculture and the extractive industries. This is not a question easily answered. The big store is, apparently, more profitable than the small one; the large steel works than the small foundry. On the other hand, there are almost innumerable businesses which have been successful as small, relatively confined and restricted enterprises, which, when extended and nationalized, have become failures. The question cannot, therefore, be answered from any casual inspection of the available empirical evidence.

There have been many efforts by students of economics to extend the application of the law of diminishing returns to banks, railroads, public utility corporations, and manufacturing businesses. Likewise there have been many efforts to show that the principle is, by its very nature, confined in its application to agriculture and the extractive industries. The difficulties in all these attempts at generalization lie in the great variety of the conclusions to be drawn from different businesses. And this variety of conclusions, leading to hopeless confusion, results from the simple fact that it has been found impossible to compare, in terms of a common denominator of quantity, the labor and capital expended in a given case and the product obtained. The following paragraphs discuss the relations subsisting between these factors and their respective products.

Application of Diminishing Returns to Manufacturing.—Many facts connected with present-day manufacture indicate conditions which might be associated with the law of diminishing returns, were it possible to phrase it differently—were it possible to get a clearer idea of the meaning of quantity as it must be applied to the factors, labor and capital, in industrial production. The presuppositions of the law require that labor and capital be compared, quantitatively, with each other and with the product under varying combinations. The difficulty is to do this empirically. But this difficulty is not nearly as unsurmountable in modern manufacturing as in agriculture and the other extractive industries. Economists have noted, especially within the last ten or fifteen years, that the economies of large-scale production, particularly when spread over many widely separated plants, have not been realized to anything like the extent that was anticipated.[2] In some notorious instances they were not realized at all. The product was so much smaller, relatively, in the large-scale than in the small-scale production, that the entire business resulted in a financial loss. This suggests the presumption that the law of diminishing returns, heretofore applied to those kinds of production in which a natural resource is the constant factor and labor and capital the variables (like agriculture and mining), can be applied to manufacture if only varying quantities of the factors of production can be empirically studied in their effects on the quantity of production. To do this the problem becomes a study of the effect of changes in the quantity of the factors upon the quantity of the product in different types of manufacturing businesses.

---

[2] This general subject is discussed at length in the next chapter.

In isolating the factors, in order to test the effect on the product of varying their quantity, it is neither necessary nor illuminating to distinguish between that portion of the capital factor that is invested in land and that in structures and equipment. If the manufacturer had a certain amount of money to be invested in "plant account," it would rest merely with his construction engineer to determine how much should be expended in land and how much in structures and machinery. Very commonly a few hundred dollars of unimproved land gives sufficient area to erect a plant costing hundreds of thousands of dollars. Especially is this true if the establishment does not require land in or near a city. As soon as the land is acquired, its original cost is irretrievably merged with the cost of the foundations and the structures, the whole representing a fixed capital investment which, aside from depreciation on the one hand and improvements on the other, remains relatively constant for considerable periods of time. It is, indeed, the most constant factor of production that economic theory can isolate, far more constant than the land of the agriculturalist, which is always subject to differences in soil content and the varying conditions of weather.

On the other hand, the labor factor can be subjected to direct and quantitative controls, impossible in the case of agricultural production. For it is certain that the economic value of agricultural labor varies with the seasons. The worth of a day's work at hoeing in early June is distinctly different from the same objective quantity in August—hoeing or anything else. But in manufacturing, on the other hand, the economic value of the same quantity of labor is more nearly constant whenever applied to the same equipment. Similarly, the ratio of economic values of varying quantities of manufacturing labor approximates the ratio of the quantities. One day's labor and two days' labor at a stitching machine are more easily compared with each other and their product than one and two days' labor on a farm.

Reduced, then, to the simplest terms and the terms most nearly consonant with actual conditions, it appears that the product of a modern manufacturing establishment is the direct result of a relatively constant factor in the form of fixed capital investment and a variable factor in the form of human labor, the whole administered by an intangible economic value called entrepreneur ability—the rôle of which in the present discussion may be omitted for the moment. The immediate problem of the quantitative relations between factors and products in manufacturing—the problem of the application of the law of diminishing returns—is, then, the problem of the effect of variations in the quantity of equipment and the quantity of labor on the quantity of the manufactured goods. To subject this problem to specific empirical tests there would be two mutually related experiments or rather sets of observations: (1) Assume a constant quantity of labor (a constant labor cost), vary the quantity of fixed capital (the capital cost), and note the effect on the quantity of product. (2) Assume a constant quantity of fixed capital (a constant capital cost), vary the quantity of labor (the labor cost), and note the effect on the quantity of product. It is obviously impossible to isolate cases where the conditions may be controlled, as is often possible among the physical sciences; but there are groups of economic phenomena which so nearly approximate those just defined that the conclusions to be drawn from them are at least of tentative value.

probl

Two
Tes

The shoe industry affords numerous illustrations of varying costs of fixed capital under a constant of labor costs. Furthermore, it is comparatively easy to isolate and to deal with the labor element in a shoe factory as nearly the whole industry is organized on a piece-work basis which has now become thoroughly systematized. The scales of piece-work payment are approximately equal in different localities for the same grades of labor.

1-
2.

Shoe
indus
consta
labo
varyi
capi

Illustrations from Shoe Industry.—The following case of a shoe manufacturer throws light on the results with fixed labor costs but with differing capital costs. A certain man had had long training in the business. He had accumulated enough money to operate a small factory with rather antiquated and inefficient equipment. In this he was highly successful. Spurred on by his success he built a modern factory to manufacture the same grade of shoes. Indeed, so complete and perfect of its kind was the new factory that it was distinctly a "show establishment" among those making that particular grade of shoe. The output or quantity of product was very much greater than in the previous factory although the same scale of piece-work wages prevailed. He failed, losing in a short space of time practically all that he had made under the previous conditions. He exercised the same entrepreneur ability in both factories. The labor costs per unit of product remained as constant as a set of actual conditions would permit. The fixed capital costs only varied. But in the second case they were so much greater proportionally to the cost of labor that the total cost of the product exceeded the competitive price value determined by other smaller and technically less efficient factories. In brief, the fixed capital cost was too great for that particular line of product.

And the manufacturers of the different grades of shoes illustrate varying quantities of products produced under conditions of varying quantities of capital investment. The highest grades of shoes are "fine turns," ladies' wooden heel "fancies," and gentlemen's fine custom lasts. These industries are confined to the small personally superintended shops of Haverhill, Brooklyn, and Newark. They are the nearest approach to the old-fashioned custom shops where a few dollars' worth of tools was all the shoemaker required. At the other extreme are the large capitalistic establishments of Brockton, Manchester, and St. Louis, manufacturing the cheapest kind of shoes in immense quantities. These companies had introduced very many economies of large-scale production, but at enormous cost of equipment.

It would be as impossible for a Newark shop to make low-grade men's shoes economically as it would for a factory devoted to cheap shoes to turn out a Newark shoe. Each is successful in its own line because it has solved the problem of the balance between the labor cost and the fixed capital cost. But the balance is determined by the size of the output, or rather by the quantity of product most economically produced. Should the Newark shop introduce the large-scale efficiency methods in the endeavor to increase the quantity of its product it would turn out so many "seconds" as to ruin first its reputation and then itself. Should the large-scale factory try to reduce its fixed capital expenditure by substituting more labor for costly equipment, either its labor costs would rise higher in proportion—thereby increasing the cost of its product—or else the quantity of its product would be reduced—thereby increasing the pro rata costs of the fixed capital and "overhead" and therefore the costs of the product.

In other words, the Haverhill, Brooklyn, and Newark manufacturers (at least those who are permanently successful) have discovered that nice and delicate balance between the ratio of labor and capital costs on the one hand and the quantity of their output on the other. They have discovered that with small capital costs proportional to the total value of the product they must adopt small-scale production. And the great highly organized factories manufacturing cheap shoes have also discovered their own proper balance—that with a large proportion of fixed capital costs in the total cost of the shoe they can adopt large-scale production. The manufacturer described in a preceding paragraph, who was successful with a small cheaply equipped, inefficient shop, but unsuccessful with a large, expensively and efficiently constructed shop, had not discovered the proper balance for his particular grade of product—the proper scale of production for the most economical ratio of capital and labor required by his particular grade of shoe—therefore he failed.

Conclusions on Shoe Industry.—The conclusions to be deduced from these observations of the shoe industry are in brief as follows:

1. Given a constant quantity of labor, constant as evidenced by its costs, in the manufacture of a given grade of product, the quantity or cost of the fixed capital to which it is applied affects the quantity of the product that can be economically produced. (Economical production is evidenced by rising or falling costs, and, in the long run, failure or success in the competitive market.)

2. In the production of any given grade of product there is "an exactly right" scale of production; a change in the scale, either increase or decrease, is reflected in a diminution of the quantity of the product—a diminution evidenced by rising costs. (By scale of production is meant the size of the unit combination of labor and capital conducted as a single establishment or unified group of establishments.)

3. If the grade of product demands a proportionally large quantity of capital corresponding to a small quantity of labor (that is, low labor cost), then the "exactly right" scale of production is large. And, conversely, if the grade of product demands proportionally a small quantity of capital to a given quantity of labor (that is, high labor costs), then the "exactly right" scale of production is small.

Illustrations from War-time Munitions Manufacturing.—We turn now to the other set of observations, dealing with cases where the costs of capital remain constant but the quantity or cost of labor varies. A highly instructive series of such cases is afforded by those metal and munition manufacturers who accepted large-scale orders from belligerent governments at the outbreak of the Great War. The American manufacturers, especially in the metal industries, were lured into taking foreign government orders by high prices and the expectation of liberal profits. They were forced to use their existing plants, although in some cases additions were hurried forward even by searchlight. Increases in equipment were not, however, important in the first hectic rush; so that we are dealing with a rather unusual condition of a constant quantity of fixed capital yielding a product under markedly varying quantities of labor. In many cases the labor was doubled, in some cases even trebled, changing from one ten-hour shift to three eight-hour shifts. Labor was increased intensively. More helpers were assigned to each master; there was greater division of labor and elimination of special work. The results were a disappointment to the managers. The product was not increased proportionally. Three shifts did not produce 2.4 times as much as a single ten-hour shift; the increased intensification of labor within the shop did not make a corresponding increase in the quantity of the product, assuming that the other factors remained approximately constant.

If the matter were allowed to remain there, the failure of our manufacturers to meet the sudden and very unusual demands put upon them by the war would be attributed to the rôle of the law of diminishing returns in modern industry. But the experiences of the munition and metal manufacturers were different. In some cases, as with the manufacturers of timing devices for shrapnel shells and of other materials requiring fine handwork, the disaster which befell the contractors was worse than that of other larger establishments taking contracts for the kind of war material that could be turned out largely by machinery. The little Connecticut or Vermont shop that undertook the handwork subcontract was ruined, whereas the Bethlehem Steel Corporation, the Westinghouse Electric, and Remington companies merely made less money than was anticipated. The handwork shops attempted large-scale production by merely increasing the quantity of labor, and disaster overcame them immediately. The establishments already committed to the manufacture of products in which the cost is largely one of fixed capital, plants already large-scale in comparison with the others, were able to increase yet further their scale of operations without serious loss. It is notable that the particular steel company which suffered at the beginning the largest relative curtailment of anticipated profits, the Crucible Steel Company, has, more than any other of the large steel companies, a considerable labor element in the cost of its product.

Conclusions on War Materials Industry.—The conclusions to be drawn from these unusual cases of the manufacture of war materials are similar to those outlined before as applicable to the shoe industry, only here there are varying quantities and costs of labor with a relatively constant investment of capital.

1. Given a constant quantity of fixed capital, varying quantities of labor affect the quantity of the product that can be economically produced. (Economical production is indicated by rising and falling costs of the product—the outward evidence of rising or falling costs being the failure or the success in the competitive market.)

2. There is reached, easily, a point of excessive costs of production as the proportion of labor is increased with respect to a given quantity of fixed capital.

3. If the grade of product demands proportionally a small quantity of labor to a given quantity of capital (that is, low labor costs), then the most profitable scale of production is relatively large. Conversely, if the product is such as to demand a large quantity of labor with respect to a given quantity of capital (that is, high labor costs), then the most profitable scale of production is relatively small.

These conclusions are identical with those reached from using data drawn from the shoe industry. The first two of them may be passed over, for the moment, as representing merely the consequences that would follow were some form of the law of diminishing returns applicable to manufacturing businesses. It is not the immediate purpose to discuss the extent to which this is true. But the third conclusion, alike under both conditions of varying capital investment and varying applications of labor, is of importance in throwing a new light on the conditions of production in manufacturing businesses.

It appears that when the quantity of labor to be applied to a given constant of fixed capital is varied, different types of industry respond differently to the changes. If the industry manufactures a product in which the labor element is large, the quantity of that product cannot be increased by increasing the quantity of labor, except at a very large increase in the cost of production. If, on the other hand, the product is one in which fixed capital is far and above the larger element in the final cost, then a sudden increase in the quantity of labor working upon the capital invested will not so seriously affect the cost of the product.

Interpretation of Conclusions.—This result, deduced from a study of data drawn from the shoe and the war materials industries, is not a mere coincidence. Both the unreflective business man and the economist observing present-day industry have long felt that somehow there must be some general principle underlying the apparent confusion in our observations of large- and small-scale production. The practical business man, with what he calls "horse-sense," discriminates among manufacturing businesses according to differences in the quantity of labor that goes to make up the product. He says, "If you have little capital, go into a business with a good deal of handwork." At first sight the truth of this bald, uncritical statement would appeai to be based merely on the assumption that such businesses are the only ones available to limited capital. Yet if this negative reason were all there was to this advice, then the man with little capital would be eliminated by the competition of larger capitalistic organizations. But, in truth, the practical business man acknowledges in this simple aphorism of the street that the man with little capital survives in those businesses where labor predominates in the cost of production, whereas he cannot survive with his small plant in those industries in which machinery predominates in the production costs. This is another way of saying that sufficient special economies to enable the producer to sell in a free competitive market can be attained in a small-sized shop if labor predominates in the cost of production, whereas if the labor costs are relatively small only the shop capable of manufacturing large quantities of the product can survive.

And this rule-of-thumb of the practical business man is in strict accord with the conclusions previously drawn from the shoe and war munitions businesses. It is, moreover, frequently tacitly assumed in the discussions of economic theory employing the concept of the law of diminishing returns in its classic form. The economists admit that the law does not operate at every point of intensive production, not even in the field of agriculture. It is certainly probable, for illustration, that within ranges of very meager cultivation two days' labor might produce more than twice as much product as one day's labor. If a man spent one day plowing a plot of land and carelessly planting it, there is a very strong probability that it would not produce half the product it would produce if he spent two days' labor in plowing, harrowing, and carefully planting. Obviously, the law of diminishing returns begins to operate only after some labor and some capital have been expended on land beyond the irreducible minimum. Obviously, there is a point in agricultural production up to which the returns increase more than in proportion to the increases in labor and capital. Beyond this point the returns decrease. There must, therefore, be a point where increasing returns cease and diminishing returns begin, a point of perfect equilibrium. From this point either a decrease or an increase of labor or capital results in a decline in the relative quantity of the products.

A study of the position of this point of equilibrium in various forms of industry has never seemed significant to the student of economic theory for two very good reasons. In the first place, as has been said, our minds have become accustomed, both from the literature of the subject and the ease of exposition, to deal with the law of diminishing returns as a phenomenon essentially connected with agriculture, or at most as confined to extractive industries. The comparison of its operation in agriculture with its possible working in other industries has seemed, therefore, neither pertinent nor of practical moment. And, again, the conditions under which labor and capital are applied to land vary so with locality, soil, and custom that any single practical demonstration of this point would have little or no significance beyond the isolated case. But if the law of diminishing returns is recognized throughout industry, then the understanding and comparison, in different fields, of this point of equilibrium becomes one of the most significant of strictly theoretical economic problems. It is also of great practical importance because it indicates whether a business is better adapted to large- or small-scale production.

The Law of Balanced Return Expounded.—It is this comparison which leads to the conclusion, drawn from various industries, that there is a point of maximum productivity as the quantity of labor and of capital is increased, but that this point varies in position according to the relative proportions of capital and labor represented in the final product. If the product is fine shoes, representing a large ratio of labor to invested capital, the point is reached in a relatively small scale of production; if it is inexpensive, low-grade men's shoes, it is reached only under conditions of very large-scale production. Clearly the position of this point at which increasing returns cease and decreasing returns begin, a point found somewhere in every industry, varies according to the relative proportion of labor and capital represented by the final product. This connection between the two can be stated in the form of a new law; or, better, a general principle approaching the rigor of a law as near as the flexibility of economic phenomena permits. It is this: *The ratio* *between the quantitative values of labor and fixed capital in any unit of product determines the point at which increase in the scale of total production ceases to be economical; i.e., it determines the point of maximum productivity beyond which further investments of fixed capital and further increments of labor cease to yield the same proportionate quantity of product.* This may be called the law of maximum balanced return, or simply the law of balanced return. It represents a more abstract statement of the third conclusion previously drawn from the shoe and the munitions industries.

This principle can be expressed in various forms. It means merely that there is a direct connection between the scale of economical production, the point of equilibrium when increasing returns cease and diminishing returns begin, and the proportion of labor and machinery that goes into the manufacture of an article. Imagine the cost of producing a certain pair of shoes to be $1.50, of which 50 cents represents the interest, depreciation, and obsolescence of all the machinery, factory, plant and power system, together with the rentals of hired equipment, that can be borne by this one pair of shoes. Imagine that $1 represents the wages of labor and superintendence. We may assume, therefore, a ratio of one to two between capital and labor costs for this particular article. Imagine another pair of shoes of which the total cost is also $1.50 but of which the capital costs are 75 cents and the labor costs 75 cents; obviously the ratio here is one to one. Now, if the principle outlined above is correct, it will follow that these two ratios give the key to the scale at which production may be carried on for the two classes of shoes. This scale will be larger for the second class than for the first. One would like, following the ideal of quantity which all general principles strive for, to say the scale will be twice as great. But one must freely admit that the rigor of quantitative exactness is a remote ideal for economic theory. The principle is at least true that a direct connection exists between the ratio of capital and labor costs on the one hand, and the scale of production permitting the lowest costs, on the other hand. To what extent their connection may be reduced to rigid quantitative terms is, at best, a matter of empirical evidence.

Illustrations of Principle—The Steel Industry.—Numerous instances having to do with large- and small-scale production seem to justify this principle in our actual experience. The most significant revelation of the history of industrial consolidation that followed the depression of the middle nineties was that the anticipated economies of large-scale production were not forthcoming. In certain industries, such as the steel industry, the divergence between theory and practice was not as marked as in others. But, nevertheless, in spite of exceptions, the fact remains that the industrial consolidations based on the fundamental presumption of the economies of large-scale production were a profound disappointment to the student of economics and the practical business man alike.[3] And the error in the judgment of both was the same—the unintelligence and limitations of human labor. Its economic efficiency is not increased by mere quantitative additions. On the contrary it is decreased. Consequently, an increase in the quantity of capital did not produce a corresponding increase in the quantity of the product because the productivity of the labor element could not be increased by mere quantitative accretions. A sudden increase in the real quantity of capital and the apparent quantity of labor carried the scale of production in the vast majority of industrial consolidations beyond the point of balance, to where the increasing returns ceased and diminishing returns began.

There is this fundamental contrast between labor and capital, a failure to realize which blinded the promoters of the industrial consolidations. In those types of industry where the human element is of small importance in the final product an increase in the quantity of labor applicable to capital could be made to keep pace with an increase in the capital even up to a point of an extremely large scale of production. This is now true of the steel industry. The fixed capital has become enormously large, but less and less does labor play a part in the final product. The very purpose behind the increase in fixed capital has been the substitution of mechanistic production for human. And as the ratio between the quantity of capital applicable to each unit of labor has increased, the scale upon which production can occur economically has increased correspondingly. In fact, so far has the successful substitution of machinery for labor been carried in the steel business that it affords to the minds of many students the best example in modern industry of economical large-scale production. It has been reported by four entrepreneur steel-makers, of wide experience and acute understanding, that no thoroughly economical establishment for the manufacture of steel and its simpler products can be built short of $10,000,000. Coupled with this large scale of production is the fact that in the value of the final product, the pro rata share of the fixed capital is enormous, while the direct labor costs are exceedingly small. That the labor costs are proportionately the smallest of any industry would be difficult to prove, but it is a matter of personal judgment that this is true. It explains, as nothing else can, why the American steel-makers, paying higher nominal wages than are paid in any steel industry of the world, can undersell their foreign competitors in neutral markets. Although the total wage received by each man is very high, the labor costs per ton of fabricated steel are very low, because of the extended use of machinery.

---

[3] See Appendix to Book IV.

The Cotton Manufacturing Industry.—The cotton manufacturing industry is one of the oldest in the United States. By the close of the nineteenth century there were a great many cotton-mills scattered over the eastern states. They were particularly numerous in certain regions of New England, the vicinity of Baltimore, and in parts of the South. This concentration of many small units in certain localities was a circumstance which in many industries promoted the combination of small competitors into large industrial combinations. But in the cotton industry only three combinations have been attempted, and all of these proved failures.[4] No combination was attempted in the fine and medium fine branches of the industry where the labor cost, per pound of yarn or yard of cloth, exceeded the unit labor costs in the production of the coarser grades of textiles.

Cotton manufacturers predicted at the time each of these combinations was formed that the anticipated economies due to consolidation would not be realized. Some manufacturers predicted financial disaster for any combination of cotton-mills which sought to introduce large-scale methods of production. In the case of the Mount Vernon-Woodberry consolidation which manufactured only coarse goods using chiefly heavy looms and low-intelligence labor it was admitted that the chance of success was greater than if a combination of New England medium-goods mills had been attempted. The reason given was invariably that all the economies of mere size of output could be obtained in a "medium-sized" mill,[a] and that problems of maintaining a high rate of production presented almost insuperable difficulties in larger units or combinations of units. This judgment is so generally acknowledged among textile operators that it represents almost a consensus of experts.

So far as actual experience is concerned the history of the three companies which attempted to secure the economies of large-scale production is highly instructive. The Mount

---

[a] The "exactly right size" for a cotton-mill varies, apparently, with the size of the yarn. Using medium counts as a basis, there is a fairly uniform judgment that a mill of 70,000 spindles can secure all the economies of mere size.[5] In lectures on mill construction in the Massachusetts Institute of Technology, 50,000 spindles was mentioned as the most efficient size. Undoubtedly for coarse numbers this is true. In another connection the author canvassed a number of prominent cotton manufacturers in Boston. The consensus of opinion seemed to be that 30,000 spindles for coarse goods and 60,000 for medium goods would give the maximum efficiency.[6]

---

[4] The Mount Vernon-Woodberry Cotton Duck Corporation. For account, see Dewing, A. S., Corporate Promotions and Reorganizations, Chaps. XIII and XIV (1914); The New England Cotton Yarn Company, *ibid.*, Chap. XII. The Parker Mills Company.

[5] Copeland, M. T., Cotton Manufacturing Industry in the United States, places the point at 100,000 spindles (page 155).

[6] Dewing, A. S., Corporate Promotions and Reorganizations. 374 (1914).

Vernon-Woodberry consolidation of coarse goods mills was consistently a failure for upwards of fifteen years, during which time other smaller duck mills of Baltimore County proved successful. After three successive reorganizations it was divided into two separate parts. Each part then passed under the control of a different and independent management. The New England Cotton Yarn Company failed twice. Ultimately one mill after another was sold to independent textile operators. It is important to note that the separate dismembered parts of the consolidation under separate and independent managers were all conspicuously successful, whereas in combination these mills had failed. The Parker Mills Company, a consolidation of southern mills, proved unsuccessful after two or three years and was divided into two parts each of which was thereafter operated by separate managements quite independent of each other. In 1919 the Consolidated Textile Corporation was formed as a combination of various cotton-mills and a selling house. It was unsuccessful and in July, 1924, effected an adjustment with "its creditors paying them 30 per cent in cash and the remainder in five year notes." Underlying bonds were in default; and in 1924 its net loss, before depreciation and interest and other fixed charges, was nearly a million dollars.

On the other hand, the New England fine goods mills in which no combination has ever been attempted are small, independent, and on the whole successful enterprises. While all this may not throw much light on the exact point at which large-scale production in the textile industry ceases to be profitable, still it does indicate that the industry is one in which small-scale units are able, apparently, to obtain sufficiently low costs of production to enable them to ward off any actual or potential competition from large-scale units of production.

The Tobacco Manufacturing Industry.—Another rather striking example is shown by the increasing scale of production for different forms of tobacco products. When the American Tobacco Company was organized it succeeded immediately in securing a monopoly—upwards of at least 90 per cent of the production—of machine-made cigarettes. This is the branch of the tobacco business in which production is conducted on the largest scale. It requires complicated and expensive automatic machinery, but at the same time a minimum of hand-labor. The old American Tobacco Company easily drove out the small competitors in this line through superior factory equipment, the result of liberal capital expenditures. Having secured a monopoly in this single form of product the company made it doubly sure by acquiring the patents covering the essential machinery. But the branch of the tobacco industry which the American Tobacco Company succeeded neither in monopolizing nor even gaining a dominant foothold in, in spite of uninterrupted efforts for upwards of twenty years and a large investment of capital, was the manufacture of cigars. This is the branch of the industry in which hand-labor is everything and machinery nothing. A skilful entrepreneur with a few thousand dollars of capital employing a few cigarmakers, buying his materials carefully, and personally supervising the work can produce a high-grade cigar actually cheaper than can a large establishment having unlimited capital at its disposal. In other words, the point of largest economy of production is reached very soon in the high-grade cigar industry, very late in the machine-made cigarette industry.

Other Industries.—All this is mere illustration of the principle, abstractly stated above on page 654, that the point at which the law of diminishing returns begins to operate as the scale of production is increased is determined by the ratio between the labor costs and the capital costs. Those industries which produce articles involving artistic handicraft or high technical skill must inevitably operate under conditions of small-scale production, because the point at which increasing returns end and diminishing returns begin occurs early. On the other hand, if the article does not require the intelligent attention of skilled labor, the operation of a law of diminishing returns may be postponed to the extent that capital investment in appliances may be substituted for skilled labor, that is, the cost of fixed capital may replace the cost of labor in the finished product.

It has been presumed by economists, engineers, and practical business men that the central station electric light and power industry is of such a nature that the larger the central station the cheaper would be the cost of production of electricity, measured both at the switchboard and at the customer's meter. In other words, it has been presumed that the law of diminishing returns does not apply to the central station industry and therefore there would be no point of balanced return. This theoretical presumption has gone unquestioned as there has been no reliable empirical evidence to prove or disprove it.

A trained economist prepared the statistics covering the financial and operating data for central stations for the year 1917 (published September, 1920). The statistics show that there is a constant decrease in the cost of production for kilowatt-hours sold, for steam stations up to about 20,000,000 kw.-hrs. annual output, after which the cost remains about constant.[7] The net income for kilowatt-hours sold is actually greater for the few very large stations, 200,000,000 kw.-hrs. and over, than for steam stations of medium capacity, 20,000,000 to 50,000,000 kw.-hrs. annual output.[8] In other words, there is a point of balanced return.

It is interesting to examine the results of numerous studies carried on by the Harvard Bureau of Business Research, as summarized by Fraser,[9] in the light of this analysis. It was found that in the retail shoe business, the retail grocery business, the retail clothing business, there was a point of minimum operating costs, representing the minimum ratio between operating expenses and the total net sales as shown by the experience of the most successful concerns. This point belonged to stores of medium size. On either side of this medial zone the operating costs appeared to increase, proportionately, to the volume of the business.[b]

---

[7] Census Rep. Table 96, page 130. Data prepared by Dr. Lincoln.

[8] *Ibid.*, page 129.

[9] Fraser, C. E., "Can the Small Merchant Compete with the Large Store?" Harvard Business Review 456 (July, 1925).

73

Practical Utility of the Law of Balanced Return.—This law of balanced return, as it is called here, is merely a general working hypothesis for the corporation official, to indicate the extent to which a given type of business may be expanded. It is not exact. It is the balance between two opposing forces, a balance between the quantity of capital and labor on the one hand, and the quantity of product on the other hand. Economies are inevitable as the business increases in size. These economies are, specifically, different in different businesses, but in general are connected with those parts of the business which are not concerned with personal judgment or individual skill and attention to detail. The economies are incidental to the automatic phases of the business. On the other hand, as the business enlarges certain wastes creep in which increase with greater rapidity than do the economies. These wastes, in contrast to the economies, pertain to all phases of the business where personal skill is required. They pertain to what one might call the humanities of business. The critical point in the expansion of any business is reached when the wastes incident to mere size overcome the economies. Before this point is reached the economies increase more rapidly than do the wastes;

---

[b] Some of the statistics based on the volume of sales are suggestive:

1. Retail Shoe Stores (results for 1923):

	Less than $30,000	$30,000 to $49,000	$50,000 to $99,000	$100,000 to $249,000	Over $249,000
Number of cases of each class	94	115	133	101	56
Total operating expenses (per cent) ...	27.8	25.5	26.7	27.5	32.0

2. Retail Grocery Stores (results for 1923):

	Less than $30,000	$30,000 to $49,000	$50,000 to $99,000	$100,000 to $149,000	Over $149,000
Number of cases of each class	52	94	178	65	82
Total operating expenses (per cent) ...	18.3	17.2	16.9	17.4	17.8

3. Retail Clothing Stores (results of 1919, figures Northwestern University, Bureau of Business Research):

	Less than $40,000	$40,000 to $80,000	$ 80,000 to $180,000	Over $180,000
(Number of cases of each class not given)				
Total operating expenses (per cent)	19.00	18.12	20.52	24.03

beyond this point the wastes exceed the economies. To determine the point is, as suggested before, a matter of very nice business judgment.

Men who otherwise command that remarkable combination of shrewdness and courage, of unemotional judgment and intuitive daring, which distinguishes the truly great business executive, often fail in this very matter of perceiving the point of expansion beyond which their business suffers from the practical application of the law of balanced return. The control of this law over business enterprise is absolute, notwithstanding the fact that its concrete application in a given case is vague and inexact. Its destructive power, once the business man has over-stepped its limit, is certain and merciless. Yet if, on the other hand, by reason of good fortune, intuition, or judgment founded on experience, he can stop the expansion of his business at exactly the right point, the economy of operation due to this very fact alone is able to absorb great wastes in other directions. A business executive may make many mistakes in the routine conduct of his enterprise, but these will be fully compensated for if he correctly determines the proper size of his undertaking.

The social aspect, too, of the law of balanced return has great importance. It has been contended by the socialists and those having a socialistic slant to their political philosophy that modern conditions of production inevitably tend toward large-scale units the ultimate outgrowth of which is government ownership and operation.[10] If the law of balanced return is true, though only in its general implications, this contention is not true. For the very heart of the principle is that in many industries large-scale production is not essential, indeed is not even so economical, as small-scale production. In those industries, clearly, economic conditions of production do not demand the large-scale unit. So that the social order cannot, in the interest of increased economy of production, demand either the adoption of large-scale units throughout industry or a state control over industry predicated on the gradual substitution of regulated monopolies instead of unregulated competition. Small-scale production with attendant unrestricted competition is, by the very nature of certain industries, destined to remain; and state operation of these industries, attempting to apply to them large-scale production, would inevitably lead to increased costs. Therefore the excuse of state control to justify the adoption, universally, of large-scale units, loses entirely the force of its argument.

---

[10] Observe particularly passage quoted in Book IV, Chapter III, note (1).

CHAPTER III

INDUSTRIAL COMBINATIONS

The Problem of Industrial Incorporations.—It was suggested in the preceding chapter that the point of size at which a business operates at its greatest efficiency is determined by the balance between two opposing forces. On the one hand, economies of large-scale production arise through the extended use of mechanical processes. On the other hand, the wastes of large-scale production are due to the limitations of human labor and human administration. Man stands in contrast to the machine. It follows therefore that the greater the proportion of the cost of finished product represented by interest, depreciation, and engineering costs—in brief by charges due to the widely extended use of machinery—the further the point of normal equilibrium may be pushed. Stating the same principle in other words, the larger the part machinery can be made to play in production, the larger the business unit may become before the law of diminishing returns begins to operate. This principle was called the "law of balanced return." In the next few chapters the practical questions of business expansion will be discussed.

The specific application of the law of balanced return to concrete cases is extremely difficult. Still, practical results in a variety of different types and conditions of business enterprises have brought together a vast number of specific facts which throw light on the empirical answer to the question—does it pay to expand? This is a field where the human factors play rôles so important that theory serves as a very uncertain and illusive guide. Economists as well as practical and experienced business men have made serious blunders in forecasting whether or not a specific business expansion or combination would be profitable. It is a sphere in which unrestrained optimism and unbridled ambition obscure the comparatively few safeguards founded on individual experience.

It is the purpose of the present chapter to discuss large manufacturing units. These are usually spoken of as industrial consolidations, since most of the large manufacturing businesses have arisen through the bringing together of many small competing businesses into a single, widely extended operating unit. From the point of view of business enterprise it is the problem of industrial expansion; from the point of view of the science of economics it is the problem of the economy and wisdom of large-scale production; and from the point of view of social theory it is the "trust" problem.

Historical Survey of Industrial Consolidation.—The large manufacturing corporation is of very recent development in the industrial organization of society. The great combinations of manufacturing establishments—the "trusts" so called—appeared suddenly during the closing years of the nineteenth century, with comparatively little warning. The movement quickly reached its climax, and then shrunk to inconspicuous proportions. In 1880 there was nothing analogous to an industrial trust or consolidation in the sense that the term was used later. In fact about 1882 the professor of political economy in one of the eastern universities is reported to have been much concerned over a combination of thread mills in Connecticut, with a capitalization of $1,000,000. He is said to have remarked to his classes that the formation of a manufacturing enterprise of this magnitude was an unprecedented event in the industrial world. Perhaps it was. This was in the early eighties. Within ten years combinations had been formed with capital in excess of a hundred million dollars and within twenty years a combination of steel plants had been formed with a total capitalization in excess of a thousand million dollars.

By 1888 several industries were dominated by large consolidations such as the Standard Oil "trust." By 1890 the tendency had reached such proportions that public opinion, thoroughly aroused against a movement in industry which seemed to threaten the stability of democratic institutions, brought about the passage of the Sherman Anti-Trust Act. The movement toward industrial consolidations stopped abruptly with the panic of May, 1893, and remained dormant during the depression of the succeeding three years. It started afresh, with renewed vigor, in 1897, when the first pulsations of returning prosperity began to quicken business enterprise. It again reached a climax about 1901, and again ceased altogether with the industrial depression of 1903. Since 1905 there have been sporadic instances of industrial consolidations but no general movement analogous in magnitude or significance to the consolidations of the closing years of the last century.[1]

First Cycle.—The stupendous wave of industrial consolidations which began in the late eighties and closed with the depression of 1903 has been divided in another connection into two cycles.[2] Each cycle began with the prosperity succeeding a depression, each culminated at the climax of feverish speculation and each was abruptly terminated by conditions verging on a panic. The earlier, or minor cycle, so called because the consolidations were fewer in number and smaller in size, began in the years immediately following the depression of the middle eighties—a depression caused by the failure of numerous overextended railroads. The consolidations formed at this time were of the typical trust form of organization in which a board of trustees assumed ownership of the corporate shares of numerous small, previously competing concerns. The trusts stifled competition effectually, but in so doing thoroughly aroused public opinion against them. The trusts were seen in the garb of a social menace. They became the dominating social and political "problem" demanding a legislative solution, and the Sherman Anti-Trust Act of 1890 was the response of a feverishly aroused Congress.

---

[1] The literature on industrial consolidations, or "trusts," is voluminous. No attempt is made to present a bibliography. Two such bibliographies exist covering the early publications and are easily accessible (Bullock, C. J., and the Library of Congress). Three brief books covering in outline many aspects of the subject without preaching any specific solution to the "trust problem" are Stevens, W. S., Industrial Combinations and Trusts; Haney, L. H., Business Organization and Combination; and Jones, Eliot, The Trust Problem in the United States (1921).

[2] Dewing, A. S., Corporate Promotions and Reorganizations, 522 (1914).

Engrossing the act on the federal statute books had, it is true, little immediate effect. Two state court decisions, one in New York[3] and the other in Ohio,[4] were adverse to the trust form of organization, and in consequence most of the consolidations formed after 1890 did not assume the trust form of organization. Meanwhile, however, in 1890 the legislators of New Jersey passed a statute that enabled a corporation organized under the general laws of New Jersey to hold the stock of other corporations. Thus did the holding company, as a usual form of organization, come into being and thereafter most of the industrial consolidations were organized as holding corporations.[a] So that, neither the prohibiting federal statute nor the anti-trust court decisions decreased the rate at which consolidations were forming. These continued with increasing frequency until the spring of 1893, and attained even greater size. Then occurred the scandalous failure of the National Cordage Company, the bankruptcy of several great transcontinental railroads, and the evil consequences of the bimetallic legislation. The panic of 1893 followed quickly and with it the promotion of industrial consolidations ceased.

Second Cycle.—The later or major cycle of industrial consolidations began in 1897. It was among the first outward signs of the returning prosperity following the stagnation con-

---

[a] A study was undertaken to ascertain the proportion of consolidations organized under New Jersey statutes. Using Edwards'[5] list of 273 industrial promotions from 1895 down to 1903, 150, or 56 per cent, were promoted as New Jersey corporations. The proportion was greater in earlier years.

---

[3] People v. North River Sugar Refining Co., 121 N. Y. 582 (1890).

[4] State v. Standard Oil Co., 49 Ohio 137 (1892).

[5] Edwards, G. J., Comparative Success of Industrial Promotions Under Three Different Types of Promotion, Harvard Graduate School of Business Administration (1926).

sequent upon the panic of 1893. At first the consolidations were few in number, but the movement, once begun again, quickly reached far beyond anything thought of in the preceding period. Every conceivable line of manufacturing had its trust. Conservative bankers, shrewd business men, and doctrinaire economists became infected with the virus of large-scale production. People condemned the trusts one moment and bought their securities in the next. It was the harvest-time of promoters. By the end of 1899 more than 130 consolidations of considerable magnitude had been organized, all for the sole purpose of suppressing competition and increasing the scale of production.[b] During 1900 and 1901 the move-

---

[b] Compilations of the exact number and capitalization of industrial consolidations incorporated during any one period are probably inaccurate. In the first place it is often difficult to distinguish between an industrial consolidation, in the sense that the term is usually employed, and a mere recapitalization of an enlarged business. Furthermore many incorporations were mere "paper corporations," which never endured beyond the initial stages of promotion. The records of incorporations, however, make no attempt to distinguish between the prospective and the actual.

The *Commercial and Financial Chronicle* compiled a list of what it called the "Industrial Consolidations of 1899."[6] From this list were eliminated public utility and mining enterprises and all purely local businesses. Only those incorporations with total capital in excess of $1,000,000 were included. After making the various eliminations and adjustments to the list, it appeared that there were 259 incorporations in 1899, which might possibly be considered as industrial consolidations with a capitalization in excess of $1,000,000. The following results of a tabulation of these 259 incorporations may throw some light on "trust" capitalization when "trust" promotion was at its very height.

NUMBER OF CONSOLIDATIONS

Total number of incorporations	259
Number having common stock only	117
Percentage of total having common stock only	45%
Number having common and preferred stock	105
Percentage of total having two or more classes of stock	40%
Number having bonds	37
Percentage having bonds	15%

CAPITALIZATION OF CONSOLIDATIONS

Total capitalization of the 259 corporations	$2,893,880,000
Total common stock	1,865,930,000
Percentage of total capitalization represented by common stock	64%
Total preferred stock	$838,350,000
Percentage of total capitalization represented by preferred stock	30%
Total bonds	$189,600,000
Percentage of total capitalization represented by bonds	6%

---

[6] 70 Chron. 561.

ment continued, but the new promotions were fewer in number, owing to the fact that most opportunities for the formation of "trusts" had already been fully exploited by the bankers and promoters. Accordingly the ground was combed over again. The trusts themselves were consolidated. A pyramid was built of pyramids. The United States Steel Corporation, capitalized at over thirteen hundred millions of dollars, was built up out of half a dozen smaller "trusts," themselves, in several cases, the combinations of smaller combinations. By 1902 signs were apparent that many of the trusts had not justified the predictions of their promoters. The public investors became suspicious. Stock market quotations of speculative industrial common stocks became at first unsteady and then began to fall.[7] New promotions became infrequent and several embryonic consolidations were stifled before their birth. By 1903 a veritable panic occurred in the stocks of industrial consolidations and new promotions ceased altogether. An industrial depression ensued.

During 1905 and 1906 few consolidations were formed, and these few were of insignificant importance. After the depression following the panic of 1907 there were occasional consolidations of industrial businesses, more especially in the retail merchandising and automobile industries. Yet, after all is said, the evidence is clear that during the period from

---

The distribution of the different capitalizations is as follows:

Capitalization	Number of Corporations	Total Capitalization
$ 1,000,000	43	$ 43,000,000
From $ 1,000,000 up to 5,000,000	70	176,380,000
" 5,000,000 " 10,000,000	64	257,500,000
" 10,000,000 " 15,000,000	23	247,500,000
" 15,000,000 " 20,000,000	10	159,500,000
" 20,000,000 " 25,000,000	14	290,000,000
" 25,000,000 " 30,000,000	7	179,500,000
" 30,000,000 " 40,000,000	6	183,000,000
" 40,000,000 " 50,000,000	6	247,000,000
" 50,000,000 " 60,000,000	3	164,000,000
" 60,000,000 " 70,000,000	8	501,500,000
" 70,000,000 " 80,000,000	2	150,000,000
" 80,000,000 " 90,000,000	1	80,000,000
" 90,000,000 " 100,000,000	1	90,000,000
Over 100,000,000	1	125,000,000
Totals	259	$2,893,880,000

[7] See Noyes, A. D., "Inflated Capitalization and the Mania of Speculation," 19 Quart. Jour. Econ. 188 (Feb., 1905).

1902 down to the opening of the Great War the number of industrial consolidations was insignificant compared with the period of fifteen years preceding the depression of 1903.[c]

Reasons for Cessation of Industrial Consolidations.— Several highly significant reasons explain why the movement toward consolidations ended as quickly as it did. Paramount is the simple fact that, as a whole, the trusts had turned out ill. They failed to meet the expectations of their promoters. Competition was not suppressed and the widely heralded economies of large-scale production were not realized. Most of the securities of the consolidations were acquired by public investors with a speculative trend of mind who fully expected to make their fortunes out of them. Anticipated earnings did not develop. The bankers who underwrote new promotions during the closing years of the period found themselves with large amounts of such securities remaining unsold. The public investors witnessed the slow but nevertheless uninterrupted decline of the "trust stocks." Few paid any dividends on the common shares and many ceased to pay regular dividends on the preferred shares, even after dividends had been begun. Highly speculative common stocks were carried on margin by speculators and accumulating interest charges steadily increased the loss. Furthermore, many of the industrials actually failed. And at the time of each failure, financial scandals, unconscionable bankers' and promoters' profits, even downright dishonesty and fraud, were fully and widely featured by the daily press. As a direct consequence the business world, the public investors, even the economists, lost faith in the economic expediency and financial wisdom of industrial consolidation.

---

[c] It is impossible to state specifically the number of industrial combinations that exist at any one time because it is impossible to define precisely industrial combination and to apply the term practically to existent businesses. Numerous attempts have been made, but the value of such statistical generalities rests quite entirely upon the arbitrary definition of fundamental terms. A report of the Ways and Means Committee of the House of Representatives (April, 1913) enumerated 224 industrial consolidations. A slight change in the meaning of the terms would have had the effect of varying the enumeration one way or the other to a very considerable extent.

A second reason for the almost total cessation of industrial promotions was the changed attitude of the law.[d] Although the Sherman Act was passed in 1890, it was not until early in 1895 that an important case under this act was reviewed by the United States Supreme Court.[9] The decision of the highest court indicated clearly that industrial consolidations were to be considered legal. The court let them pass, by a verbal subterfuge, notwithstanding the spirit of the act. But in 1899 the Supreme Court reversed itself.[10] Consolidations were not to be legalized by a mere verbal subterfuge. The act of 1890 did apply to the combinations of manufacturing plants and could, moreover, be invoked to dismember those which had been illegally formed. But this idea did not vividly and thoroughly permeate the intelligence of the banking world until the great Northern Securities decision in 1903,[11] when the teeth of the act of 1890 were felt. This decision was widely advertised and the country as a whole realized that the act of 1890 was not dead legal verbiage, but meant exactly what it said —namely, that consolidations of competing enterprises were illegal.

A third reason that explains the decline of industrial promotions after 1903 was the shift of investment sentiment. This reason was perhaps less important than the others, but it was, nevertheless, very vital in the point of view of the banker without whom no industrial consolidation could be

---

[d] It was stated by a distinguished English student of the law of combinations, regarding the evolution of the law on this subject, that, "As to the stages through which the English law relative to combinations has passed, one observation, on the whole, holds good. In developing the law as to combinations, the courts have been mainly, though not avowedly, guided by the economic theories prevalent from time to time—perhaps, to be more accurate, by the political economy of a past age, for it will be found that the courts are rarely abreast of the latest economic teaching."[8] This observation, made with reference to the whole history of the English law of restraint of trade and combination, is directly pertinent to the relatively short and limited period during which our courts have been interpreting the Sherman Act of 1890.

---

[8] Sir John Macdonell, Ministry of Reconstruction, Report of the Committee on Trusts.

[9] U. S. v. E. C. Knight Co., 156 U. S. 1. Decided January 21, 1895

[10] Addyston Pipe & Steel Co. v. U. S. 175 U. S. 211. Decided December 4, 1899.

[11] Northern Securities Co. v. U. S., 193 U. S. 197. Decided March 14, 1904.

promoted. Public utilities began to assume importance to promoters and to bankers. Prior to 1900 most of the local utilities had been built and extended by local capital alone. The savings of the community produced the local utility. But slowly the promoter-engineer began to succeed in enlisting the help of bankers in combining local utilities into large operating and holding companies. Much new capital was required. And both bankers and investors turned from manufacturing enterprises, where competition could not be inhibited by combination, to public utility enterprises, where competition was legally prohibited by means of the exclusive franchise.

These were the main causes which brought about the shift of promoting, banking, and investing sentiment away from industrial consolidations in the decade preceding the Great War. But beginning in the autumn of 1915, as a direct consequence of the enormously increased demand for manufactured products, the rapidly rising prices, the loosening of restrictions on monopoly—all economic concomitants of a great war—a new movement toward industrial combinations began. These recent consolidations differed in many important respects from the consolidations of twenty or more years before. In the first place, no attempt was made to secure all the plants in a given industry—good, bad, and indifferent—in the confident hope that thereby competition could be suppressed. On the contrary the purpose was to select a relatively few plants and these were chosen on the basis of efficiency of operation. Very often the chief purpose was to secure more capital for an old-established industry, either from bankers or the public. The consolidation of separate and independent plants was a mere incident to expansion. New capital, rather than the suppression of competition, was held to be essential to success.

These bare historical outlines do not give an accurate picture of the so-called consolidation movement of the last thirty years. It is easy to sketch the movement in its broad perspective. Yet it is difficult to picture now or even to understand the childish and uncritical atmosphere of optimistic sophistry which surrounded the promotion of all the consolidations of the closing decade of the last century. In terms of figures, the difference between foresight and hindsight is remarkable. It is the difference between the promise of promoters, bankers, and economists—for the trust contagion infected all—and the results of this promise in the actual earnings of the consolidations in the first years of their existence.

The Failure of the Industrial Consolidation.—In order to test, empirically, the actual results of consolidation, as compared with previous earnings under competitive conditions and with the anticipated earnings after consolidation, a statistical study of the earnings of 29 industrial consolidations was prepared. This is a promiscuous collection, including those reputed successful, unsuccessful, and "indifferent." As a whole, therefore, it represents a fairly accurate index of the actual financial results of consolidation as reflected in the hopes of the promoters.

Viewed in terms of rough averages the study shows that the earnings during the period immediately preceding consolidation, when the component plants were operating under competitive conditions, were approximately a quarter more than during the first year of the consolidation, and exceeded both the average earnings of the first ten years and the earnings of the tenth year when the consolidation might be supposed to have worked out its salvation after the addition of improvements and extensions. Furthermore, promoters, bankers, engineers, and accountants were prone to estimate what the earnings after consolidation were likely to reach, making liberal allowance for the economies of large-scale production, and co-operation in contradistinction to competition. These estimates exceeded by nearly a half the actual earnings during the first year, and were conspicuously greater than the average earnings for the first ten-year period. Putting the matter another way, only 12 of the 29 consolidations had earnings during their first year of existence equal to the earnings of the separate plants before

bette
befor
Consol

estima
excee
twice
the act

consolidation; and 4 only had earnings equal to the estimated earnings. The majority of them were formed during the earlier stages of a boom, so that general economic conditions were in their favor rather than against them. The average earnings for ten years were in 17 cases out of the 29 less than the earnings of the independent plants, and in 24 cases less than the anticipated earnings. In fact, looking at these statistics in terms of broad averages it would appear that the industrial consolidation never attained, even approximately, the expectations of its promoters.[12]

Although these statistics are not extensive, they do include consolidations which have been considered both successful and unsuccessful. They show actual conditions, without the bias of some preconceived theory of the economies of industrial consolidation. They indicate that the roseate hopes of promoters were not realized, but that, once the era of promotion past and the new company was well established in its trade position, its earnings were not very different from the earnings of the companies out of which it was formed. At all events, enormous profits did not follow upon mere consolidation and mere large-scale production.

To understand industrial consolidations we must not only weigh the aspirations of the promoters of the early trusts in the light of actual financial results, but also consider the economic postulates upon which the movement rested. The premises upon which the "trust movement" was based were simple—suppression of competition and economies of large-scale production.

As stated in another connection: "Two purposes lay at the bottom of every consolidation with which we are here concerned. The promoters believed that they would be able both to allay the disastrous effects of competition, and to bring into existence improved and economical methods of manufacture through production on a large scale. These two reasons were fully understood by all classes of people concerned. They were the mystic oracles which led the business competitors of years to join in a common undertaking; they were the baits which prompted the bankers to give financial backing to the extravagant enthusiasm of the promoters; they were the motives of personal advantage dangled before the eyes of an investing public; and they were the 'signs of the time' about which the public discussion of the 'trust movement' centered. Nor did these two reasons develop only as the consolidations became more frequent. Congressional debates leading up to the passage of the Sherman Act of 1890 are full of expressions of both of these ideas. The whole spirit of that act was a desire to preserve to the nation the benefits of industrial competition in the belief that the economies of production on a large scale would be accomplished through the self-interest of the manufacturer. This was in 1889, fully a decade before the consolidation movement reached its height."[13]

---

[12] See Appendix, Book IV.

Owing to the fact that the Sherman Act of 1890 was directed against all consolidations the intent of which was to suppress competition,[e] such an intent was not publicly acknowledged. It was implicitly recognized, however, and explicitly stated in terms of the number of important competitors that were included in the consolidation, and the relatively large output to be controlled by the new company.[f]

---

[e] Jones, in a recent study, contends that severe competition was not a primary motive in bringing about industrial consolidation. To prove his position would require more evidence, covering a wider range of cases, than that offered in his study. And even were his main thesis established, the fact would still remain true that the very large profits which were anticipated to follow consolidation were conceived to flow at least partly from the cessation of competition.[14]

[f] "As the majority of the consolidations came into existence after the passage of the Sherman Act of 1890, the motive of suppressing competition was stated with less explicit emphasis than that of attaining the economies of large-scale production. The former was usually expressed by drawing attention to the percentage of the industry the consolidation would control, and the reader of the prospectus was allowed to infer what would happen to competition in an industry where 70 to 90 per cent of the production was under one management. The promoters had been familiar, through the experience of the immediate past, with the effect of pools and trade agree-

---

[13] Dewing, A. S., Corporate Promotions and Reorganizations, 523, 524 (1914).

[14] Jones, E., "Is Competition in Industry Ruinous?" 34 Quart. Jour. Econ. 473 (May, 1920).

The reasons usually emphasized to support the prophecy that the consolidated company would earn more than the previous competing companies were based on the presumptions of the economies of large-scale production. Much argument was advanced to support the general contention that the "big company" could buy its raw materials and manufacture and distribute its products more cheaply than a small company.[g] The

---

ments upon prices. They believed that with centralized control, possible only through centralized ownership, all the advantages of pooling agreements could be secured, and the disadvantages of personal disloyalty among the members of the organization avoided. This was the reason that lay in the back of the minds of those who were instrumental in bringing about the consolidations, but the degree of emphasis which it was given in appeals made to the public depended, to a considerable extent, upon the width of market sought for the securities of the new corporation. For example, when the United States Leather Company was organized, practically all the stock was taken by the tanners. We therefore find very little said about the effect of the combination on competition, and nothing whatever upon the ability of the new corporation to control prices. When, on the other hand, the United States Shipbuilding Company was promoted, the people interested were actively concerned in distributing its securities to an investing public. The promoters, therefore, advertised widely the alleged fact that the new corporation would control the most efficient and economical yards on the Atlantic and Pacific coasts. The promoters, in the majority of cases, found themselves between the Scylla of the demands on the part of bankers and investors for a trade stability possible only through some degree of monopoly, and the Charybdis of public opposition to all forms of monopoly. For example, the banking interests of Drexel, Morgan and Company refused to take hold of the old National Cordage Company until that corporation had secured the control of the Plymouth Cordage Company, so essential did they consider a high degree of monopoly to the permanent investment value of the companies' securities."[15]

[g] "At the time the movement toward industrial consolidation was discussed, contemporary students laid emphasis upon and expended no little a priori reasoning in describing the economies in production to be made possible through the methods of business contemplated by a centralized ownership of many manufacturing plants. Clever students of economics went so far as to arrange tables showing the external and the internal economies to be effected by the new organization of business. Among the external economies were the savings in advertising, in purchasing, in traveling salesmen, in executive officers, in freight rates and in foreign agencies; among the internal economies were the greater command of capital, the larger surplus for experimental work, the better facilities for placing the right man in the right place, the wider opportunity for development work and the more intelligent organization of the purchasing and selling departments." *Ibid.* 529.

Nor are such mental amusements confined entirely to the period when the large industrial consolidations were being formed. In 1919 the British Report of the Committee on Trusts was submitted to the Ministry of Reconstruction, containing an elaborate "Study" by John Hilton of the entire line of reasoning—whether it is assumed that one low-priced traveling order clerk could be substituted for several high-priced salesmen, or that a thousand tons of pig iron could be bought more cheaply than ten tons—was based on the belief that methods of uniformity could be substituted for methods of diversity. Whether looked upon as the transition from the independent and unco-ordinated to the centralized and co-ordinated way of doing business, or as the transition from the inefficient small manufacturer to the dominating and efficient captain of industry with his militaristic lieutenants and sergeants, the whole movement presupposed that business could be successfully organized and standardized. It assumed that the planning and responsibility could be centralized at the head, and that all the other parts of the business organization needed only to function in set lines of routine practice; a pattern of a business could be constructed, and the business would succeed, if only the pattern were followed. By substituting the automatic machine for hand-labor, routine intelli-

---

[15] Dewing, A. S., Corporate Promotions and Reorganizations, 524, 525 (1914).

Garton Foundation in which the advantages of consolidations are again arrayed in tabular form, as follows:

"Buying (materials, plant, stores, etc.):
  Assured and steady supply of material
  Unification of buying departments and staffs
  Bulk instead of detail purchases
  Greater opportunity for comparison and selection
  Cheaper credit and better discounts
  Standardization of materials
Making:
  Standardization of product
  Specialization in product
  Improvements in plant
  Use of by-products
  Equalized distribution of work
  Quality
Selling:
  Transport economies
  Unification of selling departments and staffs
  Extension of export trade
  Collective advertising
  Lower costs of distribution; fewer middlemen
Knowledge:
  Interchange of data and experience
  Standardization and interchange of costings
  Collection and dissemination of trade statistics
  Promotion of scientific and technical research."

gence had been dispensed with in the shop and the rate of production enormously increased; by substituting the automatic system for reasoning, executive intelligence could be dispensed with and the rate of production enormously increased. It was reasoning by analogy.[h]

---

[h] The whole doctrine of the economy of industrial consolidations has been phrased anew by one of the most distinguished and successful of the early trust promoters, who has observed the whole movement from within.

"Now, in the light of thirty years' experience, during which time I have acted as organizer or industrial expert in the formation of twenty-four consolidations, let me review the general advantages of this form of industrial economy.

"The most important benefit to be derived from it is the attainment of high-speed-automatic-machine-low-cost-standardized-quantity production, which makes possible the manufacture and ~~maintenance of~~ products of superior quality.

"Because of the magnitude of their affairs, industrial consolidations are able to offer, in salaries and a percentage of net profits generally over and above a previous maximum, a sufficient inducement to secure men of the first order of ability—men who are not tempted by a fixed salary, but by the incentive of making a record and profiting by it.

"The consolidated corporation, under a system of comparative accounting and comparative administration, subdivides its business so that each of its various departments is headed by a man who, through long experience and concentration, operates at the highest efficiency. Furthermore, industrial consolidations are able not only to secure the best men as executives, administrators and employees, but also to retain men of the highest standing in the consultative professions—lawyers, engineers, architects, chemists and other advisers and technicians. Thus better service is assured, with an overhead cost less than the aggregate amount which was paid to men of lesser capacity by the various constituent companies.

"The consolidation not only adopts the best methods to be found in any of its various plants, but it improves them through continual experimentation by the ablest experts.

"It reduces stocks of merchandise, thereby saving interest and carrying charges, and minimizing loss from depreciation.

"It centralizes sales and advertising, and eliminates duplicate trade catalogues.

"It centralizes purchases, and secures important benefits through quantity and time contracts.

"It greatly reduces the volume of fixed and circulating capital per unit of output.

"It retains lawyers and experts of experience and demonstrated ability for patent and trade-mark protection. By consolidation, inventive genius is less hampered by conflicting patents, and expensive litigation is largely eliminated.

"It utilizes the advantages of a central traffic control, eliminating duplicate routes in the transportation of products sold and received, and locates factories with relation to labor, raw material and markets.

"Consolidation facilitates financing; the shareholders have greater security than they generally have in ownership of individual companies; their shares are available for loans, or convertible into cash, and are readily divisible for the disposal of part interests or for subdivision by will."[16]

---

[16] Flint, Memories of an Active Life, 309 (1923).

The unfortunate part of this reasoning, however, was that the analogy did not hold—uniformity of automatic methods, whatever their mechanical excellence, could not be substituted for the individuality of human judgment. Business ability of a sufficiently high order to manage a large group of plants could not be obtained easily and quickly. Nor could the human cogs of the machine be easily and quickly adjusted to their respective positions so that they functioned in exactly the right way, showing just enough intelligence to meet the routine requirements of their respective positions without endangering the co-ordination of parts by showing too much intelligence.[1]

---

[1] Specifically, the difficulties of the large and centralized organization in reducing men to the positions of machinery have been classified, in another connection, under six separate heads.

". . . . 1. Foremost, perhaps, was the *diffusion of responsibility*. A man with ample business skill to manage a small factory was given the management of a group of plants widely separated and each operating under local conditions. He was then compelled to delegate the actual management to paid superintendents, over none of whom he had more than indirect authority. If he tried to manage the scattered plants as he had his single plant, he found that the enormous detail involved too great a burden for his mind; important matters passed unnoticed, and the local superintendents degenerated into automatic parts of a machine, without initiative or power of assuming responsibility. (As a large manufacturer once expressed it—there comes a point where the man in the twentieth story of an office building cannot make up, no matter how brilliant he may be, for the waste and shiftlessness of a variety of superintendents in many mills hundreds of miles away in all directions.) If, on the other hand, he delegated a large share of the authority to his local superintendents, he found that he required men of marked business ability to manage the separate plants efficiently; he required, in fact, a degree of ability which commanded so high a salary as to absorb the presumptive economies due to consolidated management.

"2. Lack of knowledge of *individual employees*. A successful competitor of a large consolidation declared that his success was due to the fact that he knew the parents and grandparents of the employees in his mill. He watched his men grow up from childhood. He knew the skill and deficiencies of each, and therefore, the kind of work and the condition which would bring out the greatest earning power of each. Such possibilities of individualized superintendence of labor were impossible where the organization had grown so large that all personal contact between employer and employee was lost.

"3. Lack of *loyalty of officers* and directors. In order to maintain the continuity of the separate businesses it was the custom to have the more prominent men who had disposed of their plants to the consolidation serve as members of the board of directors, or as managing officers of the corporation. But the center of their loyalty was changed. They were no longer operating their own plants. Personal motives easily supplanted any feelings of responsibility they might have toward the great body of stockholders. As directors they were tempted to burden the consolidation with useless

These specifically human defects were not the only weaknesses. Mere size, in itself, often proved a serious handicap

---

plants at personal profit, or to make advantageous contracts with other companies in which they were interested, or give employment to relatives at high salaries. They were tempted to speculate in materials in such wise that the burden of loss fell on the corporation, or to purchases and sales of the corporation's securities, based on knowledge exclusively their own. If the body of stockholders found fault with such codes of business ethics, the directors could resign their positions and sell their securities. They could even enter into competition with the consolidation and grow strong through a knowledge of the trade enhanced by their previous connections.

"4. Lack of attention to ~~*the laborious parts of the business by the higher officials.* The directors considered their positions too important and their time too~~ valuable to spend on matters of detail. Previously, as owners of competitive plants, they were at their business offices each day from early in the morning to late in the afternoon; as 'Vice-Presidents' they were more often at the office of the corporation from ten until three o'clock, and not at all on Saturdays. They no longer felt obliged to sacrifice social pleasures for business motives. They were no longer concerned with petty economies of manufacture, insignificant alone, but large in aggregate. Even in the utilization of by-products, where one of the economies of large-scale production was supposed to lie, the executive officers would frequently take the position that the possible advantage was too insignificant to be worth their attention and trouble. (There are two temptations which confront every director in a large corporation. The success with which a man, suddenly risen to influence, resists the feeling that he is too important to devote himself to the current detail of management and the feeling that he is in a position to profit through stock market manipulation measures his future success in the position of responsibility. No human mind is great enough to manage a large business with consummate skill and follow in detail the market quotations of its securities. It is a modern instance of serving two masters.)

"~~*5. Prejudice of customers against improved methods.*~~ There was, and still is, a group of men who are ~~so~~ blinded by an external appearance of efficiency that they have come to think that the more automatic and impersonal a business becomes the greater will be its productive power. Fortunately this theory is no longer widely held. But at the time the industrial consolidations were created it was popular. As a consequence the central management undertook to substitute a more scientific and carefully articulated method of producing and selling goods for the slipshod methods of the small establishments. In cases of a standardized product the application of more scientific methods to production was undoubtedly wise but in all branches of the selling organization it was an absolute failure. Few things count more in salesmanship than the personal magnetism of an able salesman basing his appeal on long-established trade connections. The directors of the consolidation sought in the interest of organization and economy to replace high-salaried salesmen by low-paid order clerks. Many of these salesmen had been the proprietors of the old businesses, men who held their customers by family association—the customers of their grandfather and greatgrandfather perhaps. 'Among the oldest houses doing business with us' was a bond which the force of circumstances broke with difficulty. Instead of profiting through this bond the new order of scientific salesmanship interposed the deadening influence of organization between buyer and seller. Customers found that they were no longer dealing with the son of their old friend but with some cog in the machine designated as ABC. Before, they had arranged the terms of their contracts in a dingy in competition with smaller and more mobile competitors. Instead of reducing the cost of raw materials, the large company found it not only more hazardous to contract for the large quantities required for sustained production, but the very publicity of the company's demands tended to raise the prices it was forced to pay. This was conspicuously true if the consolidated company used a raw staple product, such as cotton, wool, corn, or pig iron. The large orders had to be placed openly, often with one of two or three large producers who alone were able to guarantee deliveries. If the raw materials, like cotton

---

office, replete with the memories of half a century; now their contracts were forwarded to them from the central office or delivered to them by the manager's secretary. As a result they often turned elsewhere.

"An excellent illustration of this principle is afforded by an incident at the time of the promotion of the American Hide and Leather Company. This was the consolidation whose prospective annual profits were estimated by the promoters in excess of $5,000,000, of which $4,000,000 was to come from consolidation. At the time the promotion of the company was discussed the *Boot and Shoe Recorder*, a prominent trade journal, sent out a letter to two hundred and fifty shoe manufacturers, reading as follows:

" 'In case this combine (the American Hide and Leather Company) goes through, and you were purchasing stock, whom would you favor, manufacturers outside the trust, or the trust itself?'

"A large number of answers were received. More than half expressed bitter antagonism against the prospective consolidation. A few replies only were indifferent. The following was an example, which, although superficial in its reasoning, shows the innate trade prejudice from which the majority of consolidations suffered.

'Lynn, Mass., May 23, 1899.

'Boot and Shoe Recorder:

'We would prefer to buy from the outside firms every time, for the simple reason that we believe they could serve our interests much better than the trust; the manner in which the trusts' stocks have been watered and the enormous expense they have been under are reasons why shoe manufacturers are not going to be benefited by this combination.

W. J. Creighton & Co.'

"6. *Prejudice of customers against 'trusts.'* There is a large body of intangible evidence pointing unmistakably to the fact that in the years immediately following the establishment of the large consolidations, many small manufacturers and merchants were influenced by the popular dislike of 'trusts.' This feeling undoubtedly influenced customers in those cases in which the product of the consolidation was sold directly to the ultimate consumer, as with starch or bicycles. This feeling was especially conspicuous if the goods were sold directly to members of the laboring class who were led to believe that the rise of general prices, which set in about 1899, was due primarily to business concentration. The newspapers of a sensational tone exploited this feeling in their editorials and their cartoons; the competitors displayed the words 'not made by a trust' on their goods."[17]

---

[17] Dewing, A. S., Corporate Promotions and Reorganizations, 558-562 (1914).

or corn, were quoted openly on one of the exchanges, the consolidated company's buyers were forced to supply the needs at the open contract prices. A small competitor with a relatively small total demand could "shop around" the market, purchasing secretly odd lots at a marked concession from the published prices. In many instances, therefore, "quantity purchases" proved a disadvantage rather than an advantage. During the early years of the starch and glucose consolidation a small competitor made himself conspicuously troublesome by closing down his factory during periods of small demand—when heavy "overhead" charges made operation unprofitable—and starting it up when the demand returned, using odd lots of ungraded corn. In this manner he was able to produce glucose much cheaper than it could be made by the consolidation. By bidding under the prices asked by the consolidation he could sell just enough glucose to use up the amount of cheap odd-lot corn procurable at any one time. But, small as was his possible production in comparison with that of the consolidated company, he made it impossible for the large company to maintain its prices uniformly in all markets.

Further, the very size of the large company made it less able to withstand depressions in the trade. There was more "overhead" to be carried during the inevitable periods of lessened demand in order that the entire organization be prepared for the periods of heavy demand. And in order to maintain the operation of the plants at somewhere near a point of efficient production the large company would be forced to accept unprofitable business. The small competitor could withdraw entirely from the market at his discretion, or take the most profitable business at only enough secret concession from the large company's published prices as would be required to give him the order. The small competitor would thus force the large company to take up the slack of the business. Again, the large consolidations, especially in the first years of their existence, were very reluctant to substitute improved machinery and equipment for that acquired with the original plants. Instead of encouraging improvements and stimulating experimental work, the consolidations were reluctant to scrap their great masses of worn and obsolete machinery. Under these circumstances the newer competitor, with a thoroughly improved plant, obtained lower costs of production.

The different ways in which the consolidated company was defeated in securing marked economies of large-scale production and handicapped in its competitive battle with smaller businesses might be further extended.[j] But it would add little

---

[j] If the combination operated in an industry in which competitive units could easily come into existence, it was severely handicapped in subsequent competition if it had been formed during a period of high prices. This is excellently illustrated by conditions surrounding and following the organization of the International Mercantile Marine. This was a combination involving the purchase of the stocks of six large transatlantic steamship lines. It was organized in 1902, at the top of the industrial boom that preceded the depression of 1903. At that time there was abnormal activity in the shipping industry, in consequence of which ocean freight rates ruled high and the value of seagoing steamers was correspondingly high. Thus an English statistician computes that the unit cost of a "new ready 7,500-ton cargo" steamer was approximately £60,000 in the period immediately before the organization of the International Mercantile Marine. It fell rapidly and in 1905 was only £36,000. It remained at about this level until 1911. See 74 Fairplay (London) 102 (Jan., 1920). The excessive prices paid by the International Mercantile Marine are discussed, from collateral evidence in Mead, E. S., 19 Pol. Sci. Quar. 50 (1904), and reprinted Ripley, W. Z., Trusts, Pools, and Corporations, Chap. X (1906). As a result of the boom prices paid, the combination did not prove a success. This is shown by the earning statement:

EARNINGS OF INTERNATIONAL MERCANTILE MARINE

A combination acquiring its properties at boom prices, and subject to international competition (figures in even thousands).

	Gross Earnings	Operating Expense (Not Including Depreciation)	Net Earnings (Without Depreciation)	Fixed Charges
1902	Organized	....	....	....
1903	$31,037,000	$27,036,000	$4,001,000	$3,645,000
1904	28,846,000	27,040,000	1,806,000	3,845,000
1905	33,362,000	27,456,000	5,906,000	3,889,000
1906	37,159,000	29,155,000	8,004,000	3,795,000
1907	39,266,000	32,242,000	7,024,000	3,488,000
1908	30,529,000	29,653,000	875,000	3,695,000
1909	33,953,000	29,257,000	4,695,000	3,692,000
1910	38,073,000	29,775,000	8,298,000	3,896,000
1911	39,153,000	31,070,000	8,082,000	3,620,000
1912	43,726,000	36,128,000	7,597,000	3,800,000
1913	49,041,000	39,474,000	9,567,000	3,850,000
1914	45,620,000	38,700,000	6,920,000	3,613,000
1915	Receivership			

From the apparent earnings approximately $27,300,000 was deducted for depreciation. The depreciation charges were very irregular and made only in "good years"; they were totally inadequate, as is shown by the fact that in 1916 the company charged a lump sum of over $23,000,000 to depreof general significance. The important conclusion to be obtained from a survey of the great consolidation movement at the close of the nineteenth century is that competition cannot be inhibited by combination. There is nothing in large-scale production, taken alone, that is necessarily economical.

Nor are these conclusions essentially different if we consider the results of unbridled expansion where that expansion represents merely internal growth without such absorption of outside elements as would permit one to use the term consolidation. Examples of businesses having attained a national scope through mere growth are not as common as businesses that have become great by consolidation. But having become great they are subject to the same economic laws. During their period of growth they represent usually the work of a single man. In his youth and prime this man is a veritable business genius. He overcomes difficulties; he stifles competition. His company gradually but steadily forges to the head. It may even become the largest single factor in the industry. But once the man has passed his prime the same failure to observe the ineffectiveness of mere size creeps in as in the case of a direct consolidation. The business becomes too big for a single man, now passing beyond middle life, or the group of subordinates to whom he has to entrust executive administration. In order to strengthen itself in one or another direction the business has probably branched out into allied or even different lines of enterprise. Some of these prove profitable, others do not. Large amounts of liquid capital are absorbed in an endeavor to maintain and increase the volume of sales. And when the whole situation is analyzed it will be found that the business has actually fallen back when measured in return on invested capital, during the time when

---

ciation to make up for its past delinquencies. As a whole, then, we may say that for the period of twelve years from its formation to the Great War, the International Mercantile Marine Company failed to earn its fixed charges after due allowances for depression. (The figures of "net earnings" given here are different from those employed in the table given in the Appendix where depreciation was prorated and charged against net earnings.)

it has, apparently, gone forward, if measured in terms of volume of sales. If wastes and mistakes of management are too pronounced, especially if they develop rapidly at a time of financial panic, the business fails.[k] Ordinarily, however, the results are not so dramatic. The big business merely continues to exist, yielding a lower return to its proprietors, proportionately to the capital invested and the volume of business, than is the case with its smaller competitors in the same industry.

These conclusions have a direct application to contemporary business. That is why so much stress has been laid

---

[k] The two largest mercantile failures during the last twenty years meet these conditions exactly. The Westinghouse Electric and Manufacturing Company was built up from an insignificant beginning to one of the largest factors in the electric industry in the world, through the business genius of George Westinghouse. But the business expanded too rapidly and became unwieldy; it exhausted its working capital and failed in the panic of 1907.[18] Horace B. Claflin started a wholesale dry goods business in 1843 in New York. By the end of the Civil War the sales of H. B. Claflin and Company had reached $64,000,000.[19] The business steadily increased until the death of H. B. Claflin in 1885. The house was at the time the largest wholesale jobbing house in the country—possibly in the world. The net annual earnings amounted to approximately $700,000.[20] Meanwhile smaller dry goods jobbing houses sprang up in the West, and this movement developed rapidly after the depression of 1884. The specialty jobber also came into prominence. These tendencies were recognized by H. B. Claflin, who at the time of his death was entering the importing and manufacturing fields. *Printers' Ink*, July 2, 1914. The son, John Claflin, sought to follow his father's aggressive policies, but lacked the judgment. Seeing the jobbing business slipping away to smaller competitors, he sought to preserve his position and stabilize his market by establishing a chain of department stores all over the country—upwards of forty in all. Over these extensions John Claflin exercised the most indirect methods of control. The sales policies of the retail stores were inefficient and antiquated. Their accounting systems permitted the local managers to deceive the central office regarding their true value. There was no standardization of purchases and no attempt to pool purchases so as to obtain quantity discounts. Many of these stores were purchased from the proceeds of the discount of ordinary commercial notes bearing the Claflin name, so that what purported to be commercial notes secured by quick assets were really only financial notes backed by the rapidly declining good-will of scattered and poorly managed department stores. Finally in June, 1914, the banks withdrew further extensions of credit and the structure collapsed.[21]

---

[18] Referred to again, Book IV, Chapter VII, note (g). The causes leading to the Westinghouse failure were summarized in Dewing, A. S., Corporate Promotions and Reorganizations, Chap. VII (1914).

[19] *Printers' Ink*, July 2, 1914.

[20] 50 Chron. 572.

[21] See note (s) of this chapter.

upon them. But they have also a direct application to our social philosophy. One of the commonest lines of reasoning indulged in by the state socialists is that the whole trend of modern industrialism is toward large-scale production and monopoly. This necessitates the premise that large-scale producers can invariably drive the small-scale producers out of business, since the former can produce and distribute commodities more cheaply. This being so, the issue for the public at large becomes merely one of choice of masters, whether to be ruled by privately owned monopolies or by a state monopoly. The former are founded on a crass and selfish materialism, whereas state-owned and operated monopolies are actuated by no private greed because the monopolists and the exploited are one and the same, namely the public.[1]

Now it is obvious that this whole train of reasoning rests on the presumptions of the essential economy and the inevitableness of large-scale production. The considerations presented in this and the preceding chapter, however, tend to show that large-scale production is not of itself necessarily economical, and if large-scale production is not necessarily economical, to show that it is inevitable is difficult. But if monopoly is not inevitable, the foundation of this particular argument of the state socialist vanishes.

---

[1] The whole socialistic doctrine flowing from the presumption of the economy of large-scale production has been clearly and vigorously expressed by Taussig in his broad treatment of the entire field of economics: "To view the progress of industry as has here been done is, the socialists say, to see the trees but not the forest. The large outstanding fact is the collapse of competitive industry. Combination and monopoly are the inevitable result of the machine processes and of large-scale production. Legislation cannot prevent monopoly, nor can it prevent its concomitant of ever-growing inequality. The bourgeois economist only palters with the situation when he weighs the pros and cons of competition and combination. The bourgeois legislator, whether he tries to repress or to regulate combination, is trifling with a force that is irresistible. The evolution of industry necessarily brings full-fledged monopoly. The ultimate outcome is already plain—the state will expropriate the monopolists and will manage all large-scale industry for itself. Socialism is the one goal and the one gospel; it is the desirable and the inevitable end. To this problem we turn in the chapters that follow."[22] Such reasoning as this also runs through considerable amounts of contemporary writing on industrial consolidations. Some of this may be even of a semi-official nature. Thus the British Report of the Committee on Trusts, especially the minority report signed by Sidney Webb and J. A. Hobson, is so utterly devoid of a critical understanding of the problems of industrial consolidation as to represent biased propaganda masquerading as a public document.[23]

[22] Taussig, F. W., Principles of Economics, 442 (1915).
[23] Edward Shortt, chairman, report dated April 24, 1919.

The Present-Day Problem.—These conclusions and the underlying principles which are responsible for them can be applied to present-day consolidations. So far as the failure of the earlier consolidations is to be attributed to the human and personal reasons, the law of balanced return outlined in the preceding chapter is directly pertinent. And these human and personal reasons can usually give a thorough and sufficient account of why one consolidation is, from its birth, doomed to failure, and why another is destined to achieve success. But besides pointing out a means for distinguishing between those industries which, by reason of the large use of machinery, can succeed on a considerable scale of production and those which, by a predominance of hand-labor, are foredestined to remain small-scale industries, the law of balanced return suggests certain general types of industrial combinations most likely to succeed.

Before describing these types, however, we cannot overlook one pertinent observation. It is the simple fact that extraordinary business ability can sometimes bring success out of conditions otherwise doomed to failure. The difficulty encountered in classifying all social phenomena, whether business failures or divorces, is that human nature is in itself so varied that two different men may act in opposite ways when confronted with apparently the same set of external conditions. A business genius might easily assume control of an industrial consolidation, which by reason of the law of balanced return and every other law ever invented by an economist or anyone else, ought not to succeed, and make it succeed. True, had the same innate entrepreneur ability been exercised under more favoring conditions, the consolidation must have proved an even more conspicuous success. And conversely, unusual lack of ability will destroy an enlarged business, otherwise destined to succeed, if by accident or family connection it is given control. The fact remains, and it transcends any further reduction to economic principles, that remarkably able or stupid business ability entirely upsets any attempt to predetermine the conditions of success or failure. We can at most, in deducing conclusions from any set of business statistics, deal only with an array of instances in which average conditions predominate. Acknowledgment that exceptions will inevitably crop out merely shows that the apparent rigor of physical law does not pertain to laws governing human actions in whatsoever sphere they occur. It does not imply that these laws are non-existent.

Four Modern Types of Consolidation—The Automatic Industry.—Four types of industrial consolidations seem, at the present time, to be achieving at least a modicum of success. The most important and the simplest type is to be found in those industries which have been conspicuous in rapidly unfolding improvements in the mechanical processes. Particularly is this true if the industry is such that automatic tools can be successfully substituted for hand-labor. In this manner, in strict accordance with the reasoning given in the previous chapter, the point of maximum return can be pushed forward so that constantly growing units prove more and more profitable. The increased efficiency, resulting from the mere size of the establishment or series of establishments, more than compensates for the wastes and limitations that accumulate as the size grows. Increased mechanical efficiency more than takes up the slack of decreased human efficiency.

Consolidations in the iron, steel, and other heavy metal industries have proved, on the whole, successful. The moulding machine—an example of the automatic machine—was introduced not many years before the consolidation movement began. Electric cranes and the countless other devices of the modern steel-mills have enormously multiplied the efficacy of human labor and have at the same time correspondingly reduced the need of skill.

Second Modern Type of Consolidation—The Integrated Industry.—A second type of enterprise, in which consolidation has been of obvious benefit, is in those industries in which it is possible to reach back to the primal raw material and forward to the ultimate consumer. This is known as "integration." A business concern, originally controlling only an intermediate process of manufacture, acquires by consolidation another concern which produces its chief raw material and still another which distributes to retailers or even to consumers its finished products. A furniture factory, for illustration, acquires a lumber company on the one hand and a furniture jobbing business or even a chain of retail stores on the other hand. In this way it controls the entire course of the furniture production and distribution, from the forest to the home. A shoe factory reaches back and acquires a series of tanneries, and forward, to acquire a chain of retail shoe stores. An automobile tire company acquires a fabric-mill and cotton acreage; a rubber concern acquires plantations in Ceylon.

Integrated Industries—Regulation of Production.—These combinations are certainly not always successful, because the close integration removes the spur of competitive buying and selling at the different stages of manufacture and distribution, but many of them have turned out well, especially if no great administrative ability is required in conducting the subordinate or "tacked-on" businesses. Besides effecting such economies as the closer union makes possible, the producer of the material at any one stage can regulate its production in accordance with the known demands of the next higher stage. The whole process of production and distribution is therefore less susceptible to fluctuation than when each unit is producing for a competitive and uncontrollable market. The expenses and the wastes, the lost motion and the friction of selling the intermediate products is entirely done away with.

adv

There is but one real sale, that to the ultimate consumer at the end of the whole chain.

Integration has been one of the chief reasons for the success of the United States Steel Corporation. It acquired, with the old Illinois Steel Company, extensive iron mines west of Lake Superior; it acquired, with the Carnegie Steel Company, a railroad from Lake Erie to Pittsburgh. Certain of its constitutents, like the American Steel and Wire Company, the National Tube Company, and the American Bridge Company, manufactured and sold fabricated steel products to the ultimate consumer. The Steel Corporation acquired coking coal and limestone deposits, coke ovens, and pig iron furnaces. It organized numerous intermediate links to the chain so that, soon after its organization, the corporation could claim, in truth, that it carried on every branch of the steel business, from mining the ore to the sale of the fabricated products to their ultimate consumers.

Other successful industrial consolidations have followed the same policy, so far as individual conditions permitted. The American Agricultural Chemical Company owns very large areas of phosphate rock in the South, and had, until the events of the Great War changed entirely the complexion of American investments abroad, a large interest in German potash deposits. In addition, it has pushed the retail sale of its private brands of fertilizers among the small farmers. One conspicuous reason for the success of the present Corn Products Refining Company under the Bedford management was the fact that it directed its chief efforts to producing end products sold directly to the ultimate consumers, rather than intermediate products sold to other manufacturers. It even acquired control of companies which produced the end products when this course seemed preferable to developing a market of its own. The number of instances in which this kind of vertical consolidation has taken place within recent years is very large. But the central idea in every case is the same—to control all the steps of production and distribution from the raw material to the delivery of the finished product into the hands of the ultimate consumer.[m]

Integrated Industries—Balancing Profits and Losses.—Another advantage of integration, not usually mentioned, is the creation of a balance between the profits and losses of different stages of production. This principle may be illustrated by the cotton textile industry. As now organized there are four steps from the raw cotton to the sale of the finished fabric to the jobbing or retail merchant. These are: (1) the proportion of the staple and the spinning of the cotton, resulting in the semi-fabricated product known as yarn; (2) the weaving of the yarn, resulting in the product known as grey goods; and (3) the finishing of the grey goods by bleaching, dyeing or printing them. These three stages result in the completely manufactured product. This is then taken by a group of merchandisers who sell it to the wholesalers and retailers. Now it seldom happens that there is not a liberal margin between the cost of raw cotton and its fabrication and merchandising, and the selling price paid by the wholesale merchant. In other words, the spread is almost always ample to afford a profit.

2nd adv
of integ

---

[m] This subject of integration and its weaknesses is touched upon again in connection with the community of interests between producers at different steps in the production of the final product. An interesting review of certain attempts of large business to integrate appeared in the *New York Times Annalist* of which the following quotation is an illuminating extract: "It is said to be the dream of the genius behind the General Motors Corporation to make that company self-sustaining in every particular. W. C. Durant, his friends say, plans for the day when the General Motors pyramid will reach out into the ore fields and mine its own ore; when, over its own lines, which may be lines of motor trucks, it will bring the ore to its iron works, move it along to its steel-mills, distribute the steel to its own plants which will turn out the parts, take the parts to its assembly plants, and then send out the cars, trucks, and tractors to the sales agents, also part of the General Motors consolidation, for ultimate distribution to the users. And already there is the General Motors Acceptance Corporation which can finance the purchasers. A ranch or two for the leather upholstering and maybe an electric light plant might be added and, if the Durant idea comes to realization, as those close to him expect it to, probably will be."[24] The only realization of the "idea" that came to pass was the elimination of the "genius" from the management of the company by bankers who were suspicious of his speculative propensities.[25]

Weak
of
integ

Goo

---

[24] 16 Annalist 132 (Aug. 2, 1920).

[25] See Book IV, Chapter VI, page 804. See also reference to the same subject in note (q) of this present chapter.

But at one time the profit is in the spinning of the yarn, when the weavers, finishers and merchandisers obtain little; at another time spinning is conducted at a loss, then the weavers come out even, while the finishers and merchandisers realize handsome profits. At one time the profit is quite evenly distributed, at another time one stage only secures a profit. Obviously, therefore, a mill which spins, weaves, finishes and merchandizes its goods obtains the profit wherever it exists, and in that respect is in a stronger position than the mill or bleachery or converter which relies on one stage alone for its profit. Even though the managers of a single business or manufacturing process may not care to assume the responsibilities of managing two or more dissimilar businesses, they can invest the surplus earnings in the shares of a company or companies engaged in the closely related or integrated business. In this way the losses of the major business may be offset by the dividends from the investments in a business engaged in a preceding or following stage of the production of the final goods.[n]

Third Modern Type of Consolidation—The Chain Store.—A third type of consolidation and large-scale enterprise of somewhat recent origin is the chain of retail stores. It is difficult to determine, with any degree of accuracy, the exact time at which the so-called chain store came into existence. Most of the prominent chains of retail stores started originally from a nucleus of a single store, and the idea of an extended

---

[n] This very condition is illustrated by a comparison of the income statements of the American Sugar Refining Company in 1922 and 1923.

	1922	1923
Profit from Refining Sugar	$10,084,000	....
Loss from Refining Sugar	....	$1,693,000
Dividends from Raw Sugar Companies	1,523,000	5,552,000

In 1922, although the company made a large profit on its refining operations it obtained no dividends from its raw sugar investments (except dividends on 48,200 shares of Great Western Sugar Company preferred stock, and this was probably not earned in 1922). In 1923 it suffered a loss from its refining operations, but received large dividends from its investment in raw sugar companies. In brief, and this is fully borne out by a study of the other sugar companies, 1922 was profitable for the refiners but unprofitable for the producers of sugar; 1923 was unprofitable for the refiners but profitable for the producers of sugar. A company which derived its income from both sources was able to show some profit both years.

chain came only after the proprietor had discovered that he could manage a number of stores quite as well as he could manage the two or three stores which easily developed out of the original nucleus. The Great Atlantic and Pacific Tea Company dates back to 1858, but it remained a relatively small enterprise down to the depression of the middle nineties, and it was not until 1912 that it started on its nation-wide extension of economy stores where the customer pays cash and carries away his purchases. Frank W. Woolworth started his first store in 1879, but this was based on the idea of "small price" merchandise, rather than a chain of stores. The chain idea came only when Woolworth had discovered that he must have a large agency of distribution in order to purchase merchandise on the best terms.

The retail chain store has, on the whole, proved successful. It is based on two fundamental assumptions, (1) the economy of large-scale buying and (2) the economy of standardized merchandising involving a minimum of special services rendered to the customer. The chain store aims to get its goods onto its shelves at the lowest net cost, and then to sell them rapidly, at a very low "overhead" expense and at a very small net profit. The dual purpose of the chain store was briefly and forcefully expressed by Frank W. Woolworth: "The success of our organization may be attributed to great buying power and ability to take advantage of all cash discounts, combined with economy in distribution."[26]

These two primary purposes are excellently illustrated by the motives prompting the organization of the original United Drug Company of New Jersey in 1902. This company was organized originally as a kind of "co-operative wholesale" to enable drug stores to pool their purchasing, manufacturing, and advertising under a single organization and a single name. Forty drug stores in different towns each contributed $4,000, for which each received $4,000 in the preferred and $4,000 in the common stock of the United Drug Company. Of the total $300,000 of common stock, $140,000 went to Louis K. Liggett, the promoter and moving genius of the whole organization. His plan, in brief, was as follows:

---

[26] Letter of February 14, 1912, in connection with the reincorporation of the Woolworth Company.

1. To manufacture staple drug preparations for the stockholding druggists. These preparations were to be sold only to the stockholders at prices that should not yield a net profit to the United Drug Company of more than 25 per cent—except on widely advertised products.

2. There should be only one stockholding druggist in each town.

3. All the products should be sold under a single tradename, and this name should be extensively advertised.

4. The original subscriptions of $4,000 from each stockholding druggist was to be expended in advertising for the benefit of the druggist in his own town.

5. Prices should be uniform and each stockholding druggist should have the exclusive agency of the company's products. Should he wish to dispose of his interest, the stock must first be offered to the company.

It is obvious from this analysis that the company was not organized to finance a chain of retail stores, nor as a means of reducing the expenses of retail selling. It was organized as a kind of co-operative enterprise among established retailers to supply themselves with standardized and trade-marked prescriptions upon which there was a substantial retailer's profit. The chain of stores owned and operated by the United Drug Company was a later development.

Chain Stores—Success of Various Forms.—Generally speaking, the successful chains of retail stores have grown up from small beginnings.[o] Some, however, represent consolidations in the sense we are using the term here.[p] As consolidations they have turned out well. Like other types of large

---

[o] Most of the prominent chain stores started with a single store. The chain grew solely through the investments of the profits of the established stores in new stores. This was true of the chains mentioned in the following

---

table and in no case was outside capital added until the chain had attained considerable size.

	Year Started	First Store	Year Outside Capital Brought in	Number of Stores	Average Annual Rate at which Stores Were Added Out of Profits	Sales at Time New Capital Added	Average Sales per Store
McCrory......	1882	Scottdale, Pa.	1915	113	3.4%	$ 5,700,000	$ 5,006
J. C. Penney...	1902	Kemmerer, Wyo.	1912	34	3.4	2,637,000	7,750
S. H. Kress....	1896	Memphis, Tenn.	1916	87	4.3	15,123,000	17,380
C. S. Kresge...	1897	Detroit, Mich.	1912	85	5.6	10,325,500	12,145

[p] For example, in 1916 there was a consolidation of two chains of drug stores. The stores operated by the United Drug Company (see page 693 and note [q]) sold cigars at "cut prices." In 1913, men interested in the tobacco business, particularly the United Cigar Stores, becoming incensed at this price-cutting by the United Drug Company, acquired control of a chain of 110 retail drug stores known as the Riker-Hegeman stores. The purpose was, apparently, to retaliate by cutting prices on drug preparations. This was done. In 1916, the United Drug Company of Massachusetts was organized which absorbed the old United Drug Company, with its chain of retail stores, and the Riker-Hegeman chain of stores.

There are other cases in which the consolidation is quite complex; of these the American Stores Company and the United Retail Stores Corporation are illustrations.

The American Stores Company was formed in 1917 as a consolidation of four independent chains. One of these, the Bell Company, was itself a consolidation (1905) of the original Bell Company, established in 1890, controlling at the time 28 stores, and the Eagleson Company, established in 1898, controlling at the time 11 stores, which consolidation acquired the Butler Company with 71 stores in 1915. This Bell consolidation had grown to 214 stores in 1917. With the Bell Company was consolidated to form the American Stores Company: (1) Robinson and Crawford, established in 1891 and controlling 187 stores; (2) Childs Grocery Company, established in 1883 and controlling 268 stores; (3) George M. Dunlop Company, established in 1888 and controlling 122 stores; (4) Acme Tea Company, established in 1885 and controlling 433 stores. 1010

The United Retail Stores Corporation was organized in 1919. Its chief component was the United Cigar Stores Company. This was originally organized in 1901 to conduct a chain of retail cigar stores but subsequently acquired the stores of the Independent Cigar Stores Company, C. A. Whelan and Company, Inc., The Royal Company, Mocks Cigar Stores Company, Wm. Baeder and Company, Whelan Brothers, and the cigar and drug stores of the United Chemical Company. (See also the first paragraph of this note.) With the United Cigar Stores Company was united, in 1919, to form the United Retail Stores Corporation: (1) the candy factory of Feurst and Kramer Company and the Chocolate Products Company, about which as a nucleus was built the United Retail Stores Candy Stores, Inc; (2) Gilmer Brothers, operating 9 department and general merchandise stores; and (3) the great mail-order business of Montgomery Ward and Company of Chicago. On the whole this is the most "hybrid" combination ever attempted in chain store finance; it is an indication that the period of steady intensive growth has passed and the period of financial exploitation has come—and the future is problematical.

United Retail Stores Corp.
1919

businesses likely to prove successful, a chain of retail distributing stores requires for its management a special and unusually able form of executive ability. But once this peculiar executive ability is assured the length of the chain may be considerably increased without lowering the general efficiency of the entire management. No more problems arise in the management of a consolidation of twenty stores, of the same general character, than existed in the management of five or ten. No essentially new executive qualities are required. Consolidation can therefore be effected provided that the two chains of stores are doing the same kind of business, and provided also that the ability and experience of management required in the new enterprise differ in scope, but not in kind from what has been required previously.[q]

---

this

[q] An entirely new problem, not so easily disposed of, arises when an attempt is made to consolidate chain stores engaged in dissimilar businesses, or when an executive, having made a conspicuous success of one type of chain stores, loses his perspective and launches into other lines of business and consolidates these with the original chain. To stick to his own business requires great self-control on the part of the chain store operator who has overcome every obstacle in building up a successful business.

The consolidation of chains engaged in fundamentally different businesses is seen in the United Retail Stores Corporation, described in the preceding note. Recently Louis K. Liggett, the guiding genius of the United Drug Company, took control, at the solicitation and with the cooperation of bankers, of the Winchester Repeating Arms Company. This company had become weak through the feeble administration of the descendants of the founder and had outstanding a large volume of short-term notes. Liggett proposed to start a chain of hardware stores with the Winchester Company as a nucleus, and develop them along the same lines as his chain of drug stores. The result was distinctly problematical because, no matter how much business ability an entrepreneur may possess, there comes a point in the extension of enterprise when it is spread too thin.

The temptation of the chain store to embark in connected but dissimilar businesses is a constant and grievous one. The extension back into the fields of production is the form it ordinarily takes. Integration back to ultimate production and forward to ultimate consumption has been discussed elsewhere (pages 689 and 804 of Book IV) and its weaknesses pointed out. See particularly the memorandum covering a contemplated policy of the General Motors Company, note (m). Nowhere, however, are these weaknesses so obvious as when integration is attempted by the chain store, for the simple reason that retail merchandising is a highly specialized business requiring unusual attention to its own detail and very different from production in any form. Nevertheless the great distributing power of the chain store has led very able chain store managers to assume that they could reduce their costs through their own agencies of production. Such a dream is admirably illustrated by a quotation from the letter of a prominent official of the Great Atlantic and Pacific Tea Company.

"There is a plan that we have in mind that is economically correct and

Besides the usual form of the chain engaged primarily in retailing through small stores covering a wide geographical area, there are two slight modifications. There is the small intensive chain that is restricted to one locality, but covers this locality thoroughly. These local chains are very common in the grocery trade.[r] There is also the chain of retail stores operated primarily as the assured means for the distribution of the products of a manufacturing business.[s] And recently there have been chains established by jobbing houses in an

---

that seems to be the right and proper way of conducting our business, and that is to go even farther in the direction of the producer than anyone has gone so far. As an illustration of what we mean is the day may come when we will own our own farms on which we will raise our own cattle, the milk from which will be used in the making of our own cheese, butter, condensed milk, and evaporated milk. We probably also will plant our own wheat to be used in the production of flour, have our own sugar plantations in Cuba with the refineries on the spot for the production of our sugar.

"Our own rice fields in South Carolina and Louisiana, our olive trees in Spain and Italy, our apricot and peach orchards in California, our own canning plants on the Pacific Coast to take care of our canned fruit business, our pineapple plantations in Hawaii, our chicken farms in Ohio and Michigan, may all become part of the general scheme.

"There is no reason why, with a sufficient output we should not be able to grow our own teas in India and Ceylon, catch our own fish in the Columbia River for the canning of salmon, and develop our business along the lines of the large packers such as Swift, Armour, Wilson, Cudahy, and Morris."

Such a plan has an appeal to the fancy. But it also has the weaknesses of great size. The losses which this company took on sugar and canned goods in the business reversion of 1920-1921 present the less interesting aspects of its dream. The observer, in addition to recognizing the economic fallacy of attempting to put this kind of dream into practice may perhaps recall what the great analyst of human character has said about vaulting ambition o'erleaping itself and falling on the other side.

[r] Although the locality of metropolitan Boston is quite thoroughly covered by the grocery stores of the Great Atlantic and Pacific Tea Company, there are several other large grocery chains which have developed the region intensively. Three of these large local chains have recently combined into a kind of chain combination.

[s] The retail stores of the United Drug Company were established, originally, to provide enlarged distribution for the manufactured products of the United Drug Company. A chain of candy stores known as Loft, Inc., has been established in metropolitan New York, to distribute the candy manufactured by a concern of the same name, established just before the Civil War. Most of the chains of retail shoe stores were established primarily to furnish a dependable outlet for special shoe factories. As a whole these retail shoe store chains have not proved successful because a shoe store must be prepared to offer a greater variety of shoes—men's, women's, and children's, McKays, welts and turns—than can be economically manufactured by a single shoe factory or combination of factories.

effort to meet the competition of other chain stores which go over the heads of jobbers to the original producers.[t]

Chain Stores—Sources of Economy.—The two considerable sources of economy in the operation of chain stores are (1) wholesale buying and (2) "short-cut" devices in the administration of retail store organization. The former is a matter of considerable importance. The small retail merchant has always found intelligent and economical buying one of his most difficult problems. He ordinarily has neither the time nor the knowledge to seek out his sources of supply, but must needs take what traveling salesmen are able to sell him. If his store is in a town of less than ten thousand inhabitants—in such towns chain stores have been exceptionally successful—the small merchant has the disadvantage of very little competition among the jobbers and his weak credit often requires that he confine his purchases to a single jobbing house. This results, necessarily, in giving him a narrow selection of merchandise purchased at relatively high prices. The buyers for a chain of stores are able to buy as closely and intelligently as jobbers themselves. They can cover the market thoroughly. They can purchase job lots of varying size, without direct reference either to the intermediate market or the limited credit of a single store. Furthermore, by offering manufacturers large orders at slack times when their factories would otherwise run at less than normal and efficient capacity, they have often obtained merchandise at less than the actual gross cost of production. By

dr.
all
concern

able to chase

---

[t] The chain of department stores established by the H. B. Claflin Company had exactly that origin. When the dry goods jobbing business centered in New York, during the twenty years following the Civil War, the Claflin organization was one of the most prominent, if not the most prominent in the city. But jobbing houses sprang up in the West. Larger retail department stores went over the heads of the jobbers to the mills and importers. To maintain their business the Claflin Company slowly established a chain of retail department stores. It was the weight of these that, primarily, caused the Claflin failure. (See note [k] of this chapter.)

The grocery jobbers have had their business seriously affected by the chain stores. Lichtenstein and Hirsch, jobbers, opened up a chain of twenty-five "economy stores" in the vicinity of Savannah, Georgia. 98 Printers' Ink 66 (March 1, 1917).

means of these expedients the chain store is able to place goods on its shelves at a lower cost than the local proprietary store. For illustration, the purchases of a single commodity by the Atlantic and Pacific chain of grocery stores are so extensive that, in this particular instance, they have been able to get the goods from the manufacturers at approximately 10 cents a case less than the prevailing wholesale prices to jobbers. On the other hand, heavy purchasing contracts may entail losses, as the sugar contracts of this same chain in 1920.

Probably the most conspicuous gain in the operation of a consolidated group of retail stores is in the detailed management of the stores themselves. The proprietor of the small store usually conducts his business in what might be called an unscientific manner. His system of accounting is poor, so that he is ignorant of his "overhead" expenses and the true cost of his goods. An investigation by the Harvard Bureau of Business Research of 52 grocery stores doing, in 1923, a net business of $30,000 or less showed that a net loss was realized by the group. This was true also of shoe stores.[27] The small merchant does not know where to economize and where to be liberal in his expenditures. Tradition and methods sanctified by years of use cannot be dislodged. His business lacks buoyancy and resilience. In contrast, the manager of the chain store has no traditions, no preconceived notions of business expediency; he has no friends or relatives to be maintained for reasons of sentiment or pride. His methods of accounting are thoroughly modern, so that the detailed results of every one of the chain of stores can be compared and the efforts of each local manager scientifically valued. Retail salesmanship is reduced to a science, so far as American resourcefulness makes it possible.[u] The very success of the chain store consists in

---

[u] Much has been written regarding the actual economy of the chain store as compared with the local proprietary store. The most accurate and instructive comparison can probably be made between the proprietary grocery and chain grocery stores. The comparsion is actually between a retail grocer, purchasing through a jobber and offering customers deliveries and

---

[27] Fraser, C. E., "Can the Small Merchant Compete with the Large Store?" Harvard Business Review 456 (July, 1925).

suppressing personal individuality and making uniform a tried, workable system of store management which has nothing particularly striking about it except its very colorlessness. In certain cases this colorlessness is carried to the extreme of doing away, utterly, with any attempt to serve the customer, as in the "Piggly-Wiggly" and "U-save" stores where the customer collects his merchandise from the shelves himself, pays for it and carries it away under his arm. The personal factor is entirely eliminated and with it "service" as an element in retail merchandising.

The type of retail chain store that has proved most successful in the past and that will probably be found most successful in the future is confined to those fields of merchandising where individual personal services of the storekeeper are least important. In general this includes the distribution of those kinds of commodities which are frequently bought in small quantities by the ultimate and immediate consumer—the cheap, common articles of daily consumption. And it is in exactly such lines—cafeteria restaurants, grocery stores, drug stores, cheap dry goods, and notions stores—that the retail chain has been most successful. In a purchase from a store of this kind the salesman is merely a cashier. As the price paid is small, the transaction is completed in a moment's time; no credit is extended and the customer carries away his purchase.

Elaborate statistics have been gathered to indicate the econ-

---

credit, and the chain store purchasing direct from the manufacturer and offering neither deliveries nor credit. As a basis of comparison, suppose both the jobber and the chain store buyer paid $1 net to the manufacturer for merchandise. To this the jobber will add approximately 12½ per cent,[28] transmitting the merchandise to the retailer at $1.12½. The retailer must then add an average of 19 per cent[29] to his cost in order to cover his services to the consumer and save a net profit to himself of 2 per cent. The merchandise is sold to the consumer at $1.32. The chain store of the ordinary type must add 17 per cent to its costs to cover buying and selling expenses and leave a margin of approximately 3.5 per cent net profit. The merchandise goes to the consumer at $1.17, or a saving of over 50 per cent in the total cost of distribution.

---

[28] Price, T. H., *Outlook,* November, 1916.

[29] Fraser (*op. cit.*) using the Harvard Bureau of Business Research figures indicates that in 1923 at least 19 per cent would have to be added to the purchase price of merchandise, and then only 2.1 per cent net profit (average of 178 stores doing a volume of $50,000 to $1,000,000 of business) would be realized.

omy of the chain store. They are all convincing in proving that inexpensive, frequently purchased standard merchandise can be delivered to the ultimate consumer at the chain store at a lower ultimate cost than by the old single store merchant. Yet one should remember that such statistics are misleading for the things compared are not the same. The chain store merely assembles the merchandise and passes it to the consumer in the most mechanical fashion possible. In fact, mechanism in the process of distribution is the very ground principle of chain store management. The ordinary independent store adds to the mere passing over of merchandise, personal service and credit. Consequently a comparison of the compensation which each is entitled to cannot be made unless one places arbitrary values on personal service and personal credit.[v]

Fourth Type of Modern Consolidation—The Export Company.—A fourth group of industrial combinations, having to do with foreign trade, has proved successful and is likely to prove more so as international competition after the Great War becomes increasingly intense. So far as the United States is concerned these combinations are of comparatively recent origin. They are of two distinct classes. The one class represents a combination of shipping companies, each one of which had done a more or less localized foreign trading business. The other class represents a combination of American producing companies, organized for the specific purpose of exporting, in close co-operation with each other, their surplus production to foreign parts. It is quite possible, as our enlarged foreign trade becomes stabilized, that the two kinds of export business will coalesce, but this has not occurred as yet.

The first class is spoken of as export companies, or exporting corporations. They produce no merchandise themselves, but act merely as foreign merchants on a large scale. Before

---

[v] The statistics on the following two pages worked out by Leas[30]—Statistics for 1924.

---

[30] Leas, C. A., A Study of Chain Store Growth and Expansion from 1920 to 1924, Harvard Graduate School of Business Administration (1926).

the Great War much of our foreign commerce was handled by agencies or small exporting merchants who did a restricted business, confined to relatively few localities, perhaps to a single one. The merchants and manufacturers of this country were, before the Great War, so intensely concerned with exploiting our own natural resources and developing our own markets that they entirely neglected export trade, except for an occasional spasmodic onslaught, when there happened to be a glut in our own domestic markets. But with the closing of neutral markets to the European belligerents, during the Great War, an unprecedented and extraordinary opportunity to enter foreign trade was offered to American exporting houses. In response to the pressure suddenly placed upon them, these exporting houses either expanded their businesses with the aid

---

v (*Cont'd*)

1924

	No. of Stores	Net Sales	Net Income	Capital Stock
GROCERIES:				
Great Atl. & Pac. Tea Co.	12,000	$352,093,342	$11,564,327	$13,750,000
Kroger Groc. & Bkg. Co.	3,099	90,124,798	3,225,643	6,964,967
Jones Bros. Tea Co.	571	24,295,886	(d) 284,880	13,760,000
Piggly-Wiggly Stores, Inc.	523	28,677,408	192,544	5,705,000
5 AND 10 CENT STORES:				
F. W. Woolworth Co.	1,356	215,501,187	20,669,397	65,000,000
S. S. Kresge Co. 1877	267	90,209,669	10,114,163	26,527,933
S. H. Kress & Co. 1896	161	40,259,232	3,143,934	14,985,700
McCrory Stores Corp. 1882	176	25,223,344	1,988,988	14,515,680
W. T. Grant Stores (25 cents)	70	25,316,334	2,100,921	3,930,500
F. & W. Grand Stores	27	6,590,914	483,806	2,393,791
RESTAURANTS:				
Childs Co.	107	25,066,712	1,808,958	10,347,200
John R. Thompson Co.	113	12,494,523	1,337,452	7,125,000
Waldorf Lunch System, Inc.	114	13,552,401	1,103,010	4,153,490
DRY GOODS:				
J. C. Penney Co. 1902	571	74,261,343	4,686,572	11,470,800
CIGAR:				
United Cigar Stores Co.	1,208		6,696,698	38,204,237
Schulte Retail Stores Corp.	260	30,542,205	3,897,220	18,100,000
DRUG:				
Louis K. Liggett Co.	292	37,992,722		10,591,100
The Owl Drug Co.	86	16,317,086	731,025	8,908,100

(d) Deficit.

of new capital or else combined among themselves into large, widely extended organizations. These combinations have, thus far, been uniformly successful. They command large capital and credit and widely extended banking connections. As manufacturers' agents, they are able to reach many more markets than is possible for a single exporter. Several of these combinations have embraced smaller organizations with widely separated agencies—as a combination between one exporting concern doing business in Central America and ports of the Caribbean Sea and another doing business on the east coast of South America. As merchants, doing exporting for their own account, they are able to develop a much more accurate and comprehensive understanding of foreign demands than is possible for small exporters with very limited markets.

V (*Cont'd*)

Inventory	Good-will	Per Cent Income to Sales	Sales per Store	Income per Store	Inventory per Store	Capital per Store	Good-will per Store	Stock-turn
$36,555,605	$ 1,958,190	3.28	$ 27,674	$ 964	$ 3,046	$ 1,146	$ 163	9.63
9,446,222	930,218	3.58	29,085	1,041	3,048	2,248	300	9.54
3,044,591	....	.12 (d)	42,549	499 (d)	5,332	24,098	....	7.9
2,955,650	....	.67	54,832	368	5,651	10,908	....	9.7
	Averages..	1.85	38,535	469	4,269	9,600	232	9.19
25,378,009	10,000,000	9.59	158,917	15,243	18,715	47,935	7,457	8.49
12,007,831	....	11.2	337,489	37,881	44,935	99,355	....	7 51
6,285,047	12,000,000	7.81	250,057	19,527	39,037	93,078	74,534	6.41
4,785,055	4,000,000	7.88	143,314	11,301	27,187	82,475	22,721	5.27
2,687,035	....	8.29	361,661	30,013	38,386	56,150	....	9.42
884,296	....	7.34	244,107	17,918	32,751	88,658	....	7.45
	Averages..	8.69	249,258	21,981	33,502	77,942	34,904	7.43
272,506	....	7.22	234,268	16,906	2,547	96,703		91.99
242,569	4,000,000	10.7	110,577	11,835	2,146	63,053	35,407	51 51
577,466	692,912	8.14	118,881	9,675	5,065	36,434	6,078	23.45
	Averages..	8.69	154,575	12,805	3,253	65,397	20,743	55.65
14,947,036		6.31	130,055	8,208	26,177	20,088	....	4.97
11,717,891	21,400,000			5,543	9,700	31,543	17,715	....
4,551,149	5,000,000	12 76	117,470	14,989	13,658	69,616	19,231	6.71
	Averages..			10,266	11,679	50,580	18,473	
6,319,470			130,112		21,642	36,271	....	6.01
3,610,196	4,820,680	4 49	189,733	8,500	41,977	103,583	56,054	4 52
	Averages..		159,923	....	31,809	69,927	....	5.27

(d) Deficit

In this manner they are able to exercise far more intelligence in purchases for their foreign accounts than could the small exporter. And in addition to the wider facilities for merchandising American products these combinations are able to control steamship companies, wharves, storage warehouses, besides having command of considerable banking and credit facilities.

The other class of industrial export companies is almost too recent in origin to be included in this survey, except by way of prophecy. It includes the consolidations of manufacturers legalized by the so-called Webb bill. Ever since prosecutions under the Sherman Act of 1890 began to inhibit the formation of new consolidations and cause terror to those already formed, business men who believe in large-scale production have argued for the need of consolidations on the ground of foreign trade. The contention that large-scale units of production in this country are required in order to meet successfully the large-scale units of other countries looms large in their apology for the trusts. And it has a sound basis in fact and theory. The small business has not at its command the capital, the organization, the flexibility of production, even the intellectual grasp of commercial affairs, to enable it to enter successfully the field of foreign trade. It is urged, therefore, that public policy, which requires that foreign commerce shall thrive under the best auspices, should countenance the large industrial consolidations. Some even advocated that the Sherman Act should be repealed or at best modified so as to legalize industrial consolidations engaged in foreign trade. By no other means, they believed, could American export trade be developed. The Webb bill was the compromise between those who would encourage consolidations in order to promote foreign trade and those who would prohibit them in order to prevent monopoly in domestic trade.

The Webb Act provides that American export business be liberated from the restrictions of the Sherman Act of 1890. It enables manufacturers to combine for the purpose of carrying on foreign trade, even though such combinations are specifically prohibited by the Sherman Act. Under the Webb bill domestic competitors may collectively form an export corporation which markets a certain proportion of the output of all the competitors, each one of which assigns to the export company a stated percentage of its production. The act presumes that manufacturers can be associated in their foreign business and yet remain competitors in their domestic business. It requires a kind of trade duplicity. Part of this duplicity is a pure fiction and part is based on sound economic principles. In so far as the Webb bill presumes that foreign business can be carried on without affecting domestic business, it is an anomaly; but so far as it presumes that foreign business requires the continued support of a large producing organization, it is absolutely sound. In this it is merely copying what European nations have already done in building up their foreign commerce. And without this support our rapidly expanding foreign trade would be stifled by the very anxiety of the small producers to preserve their existence at least under the necessarily competitive conditions of the domestic market. In other words, some kind of organized and united effort must take place in order to enable American manufacturers to export their merchandise in competition with the organized and united efforts of European exporting organizations. But whether the problem is to be solved by combinations among export houses themselves, which carry many lines into a few highly developed markets, or by combinations of manufacturers carrying a single product into many markets, only the future developments of commerce can tell.

CHAPTER IV

THE EXPANSION AND CONSOLIDATION OF RAILROADS

Historical Significance.—A study of the expansion and consolidation of American railways is now a matter of little more than historical importance. While there are likely to be many changes in the corporate and financial organization of the railways, in the years succeeding the government operation of the period of the Great War, still the changes will inevitably follow lines different from those during the long period between the commencement of railway consolidation in the early forties and the assumption of federal control on January 1, 1918. The enactment of the Cummins bill, under which the private operation of the carriers was resumed, has given the government a direct and explicit supervision over changes in operating and financial control. The welfare of each road is now completely conditioned and circumscribed by theories of general public expediency. The period of promotion and personal direction during which the railway net was built, ended at the opening of the Great War; and with it ended, too, the expansion and consolidation of railway properties in the sense that these terms could be made to apply to the railroad history of previous years.

But although now a matter of historical importance only, the expansion and consolidation of our railways afford most striking examples of complex corporate organization. From the point of view of the use of the holding company, railway consolidations have not, perhaps, been quite so prolific in anomalies and complexities as the consolidations of lighting and power companies. Yet from every other point of view, and by the use of every other legal and intercorporate device within the inventive power of astute lawyers and even more astute financiers, the history of American railway consolidations affords the most fertile field for the study of intricate financial legerdemain. Most, if not all, of the subtleties of "high finance" originated in connection with some problem of railway consolidation. For these reasons the subject demands detailed and exhaustive attention.[1]

Methods of Treating Subject.—The general topic of railway expansion and consolidation may be studied from five different points of view. The first and most exhaustive would be a detailed study of the genesis and development of each large railway system of the United States. Such a method would be exhaustive and cumbersome beyond the limits of a single volume, and out of question for a single chapter. Another method, akin to this, but more cursory, would be to trace the consolidation of railways according to large geographical divisions of the country.[2] Such a study, however, would turn rather upon the physiographical and operating features with which each railway system must contend, than upon the conditions and problems of its financial structure. A third method would be to consider railroad expansion and consolidation in terms of the motives underlying each case. Sometimes the motives have been purely economic, sometimes they have had their roots in ambitions and personal jealousies; sometimes they have been of a political nature; sometimes they have sprung from stock market operations and the machinations of speculators. To make such a study in a comprehensive manner, however, is practically impossible because of the limited data available; and the true motives that have led railroad financiers to adopt the courses that they have followed are seldom confessed by the men themselves. A fourth method would be to describe railroad consolidations according to the historical periods during which different waves of consolidation have been most conspicuous. This method is followed in the latter part of this chapter. A fifth method would describe the various legal and financial expedients that have been employed in the past, and that account in large measure for the intricacies and anomalies of the present corporate structure of the railway system. These expedients comprise the means taken to develop railway systems out of the original heterogeneous and disjointed separate lines. They constitute the structural forms of railway consolidations. This method will be pursued in the present study as it affords a sound basis for considering railroad consolidations from the point of view of financial policy.

---

[1] The general topic of railroad consolidation and expansion has been treated many times with varying degrees of fulness and acumen. Many writers fail to assume a scientific point of view, unaffected by a personal prejudice for or against the social expediency of railroad consolidation. Perhaps the best study of the kind, written when railroad consolidation was looming up as a great social and political problem was Ripley, W. Z., Transportation, 19 U. S. Indus. Com. Rep. 259 (1902). Other studies are: Newcomb, Recent Great Railway Combinations; Cunniff, Increasing Railroad Consolidation; Intercorporate Relationship of Railways, as of June 30, 1906. Special Report I. C. C. (1908); Cleveland and Powell, Railroad Finance, 272 (1912).

There have been a large number of historical studies of the development of single railway systems. A few such are: Daggett, Stuart, History of the Southern Pacific; (1922); Trottman, Nelson, History of the Union Pacific (1923); Davis, J. P., The Union Pacific Railway (1894); White, H. K., History of the Union Pacific Railway (1895); Hinsdale, E. B., History of the Long Island Railroad (1898); Smalley, E. V., History of the Northern Pacific (1883); Mott, E. H., Between the Ocean and the Lakes (Erie) (1901); Dozier, H. D., History of the Atlantic Coast Line (1920); Wilson, W. B., History of the Pennsylvania Railroad (1899); Cary, F. E., Lake Shore and Michigan Southern Railway (1900); Stennett, W H., Yesterday and Today (Chicago and Northwestern) (1905); Cary, J. W., Organization and History of the Chicago, Milwaukee and St. Paul Railway (1893).

In connection with the physical valuation of railroads very careful empirical studies have been made of the corporate history of each of the components and antecedents embraced in the railroad being valued. Although these digests are nothing more than corporate skeletons they afford extremely accurate epitomes of individual railroad history.

[2] This is the method pursued by Ripley in his comprehensive outline of railway consolidations. Ripley, W. Z., Railroads, Finance and Organization. Chap. XIV: "Combination: Eastern and Southern Systems"; Chap. XV: "Railroad Combination in the West" (1915).

Analysis of Forms.—In detail the means employed to effect the consolidation of railway lines in this country have been as varied and complex as the irregular and unsystematic growth of our railway network would indicate. Every possible device has been tried at one time or another. These devices vary greatly in the degree of closeness of union they bring about—in the coherence and rigidity of the resulting consolidation. It is possible perhaps to classify these in a series in which the methods employed vary in closeness of connection from mere traffic agreements—not consolidations at all—at one end of the series, to absolute ownership at the other end. A series of such types would run somewhat as follows:

Means of industrial combin

1. Traffic agreements, interchange of traffic being optional.
2. Pools, with central bureau having autocratic direction of routings.
3. Traffic agreements with provision for exclusive traffic interchange when possible.
4. Lease.
5. Control by the ownership of a majority or working minority of the stock.
6. Lease and partial or entire stock ownership.
7. Ownership of entire capital, but the subsidiary road operates under separate franchise rights and maintains a separate corporate existence—and possibly a separate name.
8. Absolute ownership, either through the outright acquisition of the real estate and personal property or else through the complete extinction of the separate existence of one or more corporations.

All these forms of loose and close combination among railroads must be distinguished from any of the forms of "community of interest" among railroads. This latter is not consolidation at all. It is discussed in Chapter VI, below.

Other attempts have been made to separate from each other and to classify the various types of railroad consolidation and railroad control. One of the most carefully worked out is that given by the Interstate Commerce Commission in its Report on Intercorporate Relationships of Railways, 15 (1908).[3]

Control of or over a corporation means "ability to determine the action" of that corporation. Control has been classified under eight different headings:

1. Right to possess all the property of the corporation except its instrumentalities of organization.

2. Right to possess all the property of the corporation ex-

---

[3] Quoted in condensed form in Cleveland and Powell, Railroad Finance, 281 (1912).

cept its instrumentalities of organization, its money, and its choses in action other than corporate securities.

3. Right to possess such portion of the tangible property of the corporation as is capable of being employed in discharging the duties of a common carrier. The principal form of control contemplated under this class, as well as under class 2, is the control effected through lease, class 2 differing from class 3 only in the extent of the property and interests covered by the contract. It has been urged by many of the carriers that a lease of the tangible property of a corporation does not constitute control of the corporation; that it merely gives possession of certain physical property and in no way interferes in the management of the corporation itself. This contention has some merit; but in view of the fact that the provisions of lease contracts vary so widely in the extent to which they allow participation in the affairs of the lessor corporation, and that even the most simple forms of lease agreement are likely to bring about, either directly or indirectly, a very considerable degree of control, it did not seem wise or practicable to eliminate lessor corporations from the railway systems into which their contracts brought them and to class them as independent carriers. It has been felt that the inclusion within a particular system of all railways leased by any corporation within that system would better present the existing intercorporate situation. Any possible misunderstanding that might arise from this practice has been guarded against in the table by the reservation of a special column in which the character of the intercorporate relationship is stated. It has also been the practice in this tabulation, where a corporation was owned by one corporation and leased to another, to assign it primarily to the system in which it was owned.

It should be especially noted that this classification distinguishes between leases and trackage rights. For the purpose of this compilation a lease is understood to give control, either sole or joint, over the lessor corporation. A mere right to use a portion of a track in company with the owning corporation is a trackage agreement and is excluded from consideration.

4. Right to exercise the major part of the voting power attached to the shares of stock and other securities of the corporation.

5. Right to name the major part of the board of directors of the corporation, whether by virtue of voting trust agreement or by virtue of title to securities or otherwise.

6. Right to foreclose a first lien upon all the property of the corporation.

7. Right to foreclose a first lien upon a major part of the property of the corporation.

Forms 6 and 7 constitute control for the purposes of this compilation only in case the securities which constitute the lien have matured, or the interest upon such securities has been defaulted, and the right to foreclose such lien has not yet been exercised. The mere possession of the unmatured first mortgage bonds of a solvent corporation would not, from the standpoint of this investigation, constitute control.

8. Right to determine the action of the corporation in a specific respect or respects.

This last class is intended to cover any peculiar forms of control not included in the other classes. Under this class would fall control through advances for construction purposes, which is referred to under a separate heading later in this discussion.

Any historical or critical study of railroad strategy will suggest a subtile knowledge of esoteric relationships and vague spheres of influence which the writer does not possess; and it should be remembered that any attempt to classify railroad relationships is necessarily arbitrary. Nevertheless, it is approximately true to insist that any form of relationship among railroads, sufficiently close to be deemed a consolidation, must involve an absolutely unified control of the technical and financial affairs. The roads must be operated as one; the control of their financial operations must be thoroughly and completely unified. This excludes from the scope of railroad consolidations mere pools and traffic agreements, no matter how close,[4] it also excludes the various forms of "community of interest" in the railway world by which a single man or banking institution, or group of men exercise dominion over several railway systems.

Railway consolidation, in the broad but definite manner in which the term is used here, implies the direct merger of financial and operating control. It is brought about by either lease or direct ownership, or both. And direct ownership may be either through the ownership of stock or the complete merger of real and personal property, with the total extinction of the separate existence of one or more corporations. These are types. A great many cases exist in which consolidations are effected by both lease and merger. And the particular forms of these fundamental types are as various as the ingenuity of man can invent. In the evolution of these fundamental types, financial legerdemain has led the way, and the legislatures and courts have followed after. The stakes in the game of railroad consolidation and the manipulation of values have been so large that the game has attracted men endowed conspicuously with constructive and imaginative ability. The men who played at the game of railroad consolidation were more able and resourceful than the statesmen and justices who were supposed to keep their predatory instincts in check. Simon Sterne, writing in 1888 when railroad consolidation was in full swing all over the country, stated: "The intelligence of our law administrators is not equal to the intelligence of our leading bankers and railway magnates. . . . The industrial development of this age has been far beyond the judicial development. . . . The consequence is that the applied arts and sciences have invited into their fields the strongest and best intellects of the community, and they are better equipped than the law adminsitrators in ingenuity and intellectual alertness. . . . The law in the machinery of formation has not kept pace with the general development of the community."[5] Could Mr. Sterne have known our contemporary legislators!

---

[4] Steps 1 to 3, in the first part of the preceding paragraph.

In spite of the complexity of the subject and because of simplicity of exposition we shall consider the lease and the ownership as the two primary types of consolidation. Each has modified forms and these will become clear from a detailed study.

The Lease.—Consolidation by means of the lease of one railroad property by another secures the benefits of united operation without the financial cost involved in the outright purchase of a railroad property or even of the controlling shares in a railroad property. This is the chief advantage of the lease; its disadvantages will become apparent presently.

The feature of importance in all lease agreements is the compensation. This is either fixed or contingent. In the fixed rental leases one railroad corporation agrees to pay to another railroad corporation or to its security holders a stipulated annual amount; in the contingent rental leases the annual payments depend on some variable element, such as earnings or the volume of interchanged traffic. During the earlier years of railroad consolidation, perhaps down to the period following the panic of 1873, the two forms of rental payment were about equally common. A railroad corporation paid the fixed rental when the line to be leased had proved its earning capacity through a period covering several years of operation, whereas the contingent rental was insisted upon in those cases in which the earning capacity or the volume of the interchanged traffic was yet undetermined, or where the relative value of the leased line was entirely problematical.[a] This prin-

---

[a] This principle is excellently illustrated by a study of the early lease agreements of the Pennsylvania Railroad. No less than 48 little railroad corporations all representing roads less than a hundred miles in length and many less than ten miles in length were held by the Pennsylvania Railroad in 1893 under lease. Many of these lines were first leased on a contingent basis and later on a fixed basis. (The year 1893 is used as a basis of study of railway leases because this year is regarded as marking the end of the

---

[5] Sterne, S., "De Maximis non Curat Lex," reprinted in, Railways in the United States, 200 (1912).

ciple would apply even to the extent of dividing a line into two parts, the better established part carrying a fixed rental, while another part with a lower density of traffic carried a contingent rental.[b] In later years subsequent to the panic of 1873 and when the large railway systems were emerging from the chaos of disconnected lines, the fixed form of rental became much more common than the contingent form, so that now a fixed and perfectly rigid rental is the usual form of compensation under a lease. And this is true whether one considers the number of effective leases or the importance of the lines involved.[6]

Uncertainty about the future was, in the past, the usual reason for adopting the contingent rather than the fixed rental. It was—and still is with but few unimportant exceptions[c] —based on one of three methods of computation. The rental is made contingent: (1) on the volume of traffic interchanged; (2) on the gross earnings of the leased line from all sources; (3) or else on its net earnings.[d]

---

period of direct railway consolidation—the formation of single railway systems in contradistinction to the formation of systems of systems, which characterized the later period. See page 721.)

[b] This was exactly the case of the original lease of the New Haven and Northampton Railroad in 1849 and 1850. The section from Plainville to Granby together with certain branches was leased by the New York and New Haven Railroad for an annual fixed rental of $40,000. The portion of the line from New Haven to Plainville was leased to the same road "at an annual rental of $45,000, provided the gross earnings should amount to $75,000 a year, any deficiency in that amount to be deducted from said rent, and any excess thereof to go one-third to the lessor and two-thirds to the lessee."

[c] Were one disposed to find cases of irregular and unusual contingent rentals in the history of railroad consolidations, the task would not be difficult. Many variables, other than some form of the three here mentioned, have been used. For example, the Massawippi Valley Railway was leased in 1870 to the Connecticut and Passumpsic River Railroad. The latter road agreed to pay as rental the annual interest on Massawippi bonds and a dividend on the Massawippi stock of the same rate as it paid on its own stock. A simpler plan was used in the lease of the Southwestern Railroad to the Central Railroad and Banking Company of Georgia (August, 1869), only here the rental had a minimum of 7 per cent on the stock, and 1 per cent above this for every 1 per cent of the Central Railroad's dividend above 9 per cent.

[d] This classification does not include those border-line cases in which the association amounts to little more than a rigid traffic agreement, or at most a lease, so casual and contingent in its provisions as to nullify any

[6] See the results of the statistical study given on page 721.

Traffic Leases.—The traffic interchange rental leases are used in cases where a trunk line wishes to control some connection, without assuming complete control of its operation and without assuming any financial responsibility for its independent success.[e] This is probably the loosest form of union among railroads that can be dignified by the name of consolidation. It is resorted to only in cases in which the structural unity of a railroad system will not be seriously harmed by the loss of the leased line. A lease of this character varies from the ordinary traffic agreement only in the length of time it may be presumed to last[f] and the relatively greater legal bond it establishes between the roads. But for these reasons it is merely a makeshift. If a loose connection is sought for, resting on the mutual advantage of traffic interchange and that alone, the ordinary traffic agreement is preferable; if a strong connection is desired, which shall effect an actual consolidation

---

effectiveness as a means of consolidation. For illustration, in 1879 the New York, New Haven and Hartford Railroad agreed to operate the Boston and New York Air Line Railroad. The agreement was to run for five years. The New Haven road was to pay 6 per cent of the gross earnings during 1879-80 and 6 per cent later. In 1882 this loose agreement was canceled and the New Haven road leased the Air Line on a fixed rental.

[e] An interesting type of this was afforded by the contract between the Grand Trunk Railway of Canada and the Central Vermont Railway (a Vermont corporation). The former owned $2,164,500 par value of the latter's $3,000,000 of stock. But the real value, such as it was, of the Vermont Central was represented by approximately $11,000,000 First Mortgage 4 per cent Bonds refunded in 1920. These old bonds were guaranteed as to interest only by the Grand Trunk Railway of Canada, up to 30 per cent of the gross revenue received from the traffic interchanged between the two roads.

In rare cases a minimum is specifically mentioned: thus the lease (February, 1869) of the Sandusky, Mansfield and Newark Railroad to the Central Ohio required a minimum of $174,350, and in addition 15 per cent on a portion of the gross traffic interchanged.

[f] The time element is less important than might appear, because short leases may be continually renewed and long leases are usually "adjusted" if too one-sided. In 1918, of the 205 cases studied (page 721) the following were the original periods:

Original Length	Number of Cases
"On Notice"	10
Under 20 years	17
21 to 49 years	18
50 to 99 years	69
100 to 1,000 years	61
Perpetuity	19
Corporate or Charter Life	11

of lines—not a mere agreement for mutual help—then some other form of union is much to be preferred.

Gross Earnings Leases.—Rental payments depending on the gross earnings were the commonest form of contingent rentals during the period in which the great systems were built up.[g] Out of a selection of 60 important contingent leases in force January, 1893,[h] 44 were contingent on gross earnings. The rentals varied from a minimum of 20 per cent[i] up to a maximum of 50 per cent.[j] The most frequent specific gross earnings rental was 30 per cent.[k] In quite a number of cases the proportional rental varied according to the magnitude of the gross earnings—the rental being greater as the earnings were greater,[l] or else increased with the passage of time.[m]

Net Earnings Leases.—The variability of the cost of operation through a long period of time has led to the frequent use of net earnings as the basis for computing a contingent rental charge. While not so frequently used as gross earnings, in

---

[g] This statement is subject to broad exceptions. For example, none of the Pennsylvania Railroad's early leases—although most of them were of the contingent form—rested on gross earnings solely. One or two of the Pennsylvania Company's leases, like that of the Massillon and Cleveland Railroad, were of this type. See page 721 below.

[h] See page 721; leases of the Pennsylvania system not included.

[i] The old Massachusetts Central Railroad was sold at foreclosure in 1883 and reorganized as the Central Massachusetts Railroad. This was leased to the Boston and Lowell Railroad for 20 per cent of the gross earnings up to $1,000,000, 25 per cent on amounts above.

[j] The Holyoke and Westfield was leased to the New Haven and Northampton Railroad at 50 per cent of gross earnings.

[k] The result of this tabulation has, perhaps, some interest, as showing the various kinds of gross rental leases prior to the beginning of the amalgamation of railway systems, in 1893.

Gross Rental	20%	22½%	25%	30%	33⅓%	35%	37½%	40%	50%
No. of Cases	1	1	9	15	4	7	3	3	1

[l] For example, the St. Louis, Vandalia and Terre Haute Railroad was leased to the Terre Haute and Indianapolis Railroad at 30 per cent of gross earnings which increased gradually to 35 per cent as the operating ratio was reduced below 70 per cent.

[m] The old New London Northern Railroad was leased to the trustees of the Central Vermont Railroad in 1871. The trustees agreed to pay a minimum of $150,000 a year, and $15,000 a year for every $100,000 of gross earnings in excess of $510,000.

The Kansas City and Pacific Railway was leased August 1, 1890, to the Missouri, Kansas and Texas Railway for 30 per cent of gross earnings for the first five years and 33⅓ per cent thereafter.

the period during which railway systems were being built up,[7] it was almost universal among certain systems. Practically all of the Pennsylvania's leases were of this kind, for example.[8] These net earnings rentals were of two kinds—either the whole of the earnings, above operating expenses, were considered the rental, or else only a certain proportion. Almost invariably, in those cases in which the entire net earnings were regarded as the rental, the operating company owned all the securities of the leased line subsidiary. This is today the condition of most of the Pennsylvania Railroad's "net earnings subsidiaries," although originally many of these subsidiaries had outstanding securities in the hands of the public—mostly bonds—the interest or dividends on which the Pennsylvania was forced to include among the operating expenses of the leased subsidiary.[9] When the rental is a percentage of the net earnings it is usually a large proportion.

It is distinctly an open question as to what form of contingent rental is fairest to all concerned. A rental, which is ultimately a contract between the security holders of the two corporations, must obviously involve advantages to both. Usually the most important advantage is in the exchange of traffic. This is registered in the volume of gross business, so that a proportion of gross earnings would seem at first thought to be the fairest basis for determining the rental. And this would be true were the earnings of the subsidiary not affected by the joint traffic agreement between the two roads. But when the main line is able, through the control of a majority of the stock of the subsidiary, to impose on the latter an agreement on interchanged traffic which returns to the subsidiary an unconscionably small percentage of the joint revenue, the earnings remaining to the subsidiary's own security holders will be meager and unfairly small. If all the securities of a leased line are owned by a parent company, or at the other extreme if the larger company has little ownership in the subsidiary or cannot exercise any control over the traffic interchange contract, then there can be complete freedom of contract between the two boards of directors and no unfairness of rental can be alleged.

---

[7] See statistical study, page 721, covering leases existing in 1893.

[8] *Ibid.*

[9] See page 721.

But in cases like those enumerated above, when there is a conflict of interest between a controlling majority and a helpless minority of security holders, a question not only of the expediency but also the fairness of leased line rentals is inevitably raised. And this difficulty is increased when the rental is based on net rather than gross earnings. For in such cases the controlling parent company may not only determine the division of the revenue from the interchange of traffic, but it may also control the expenditures for operating expenses of the subsidiary, so as to fix arbitrarily its net earnings and its rental.

It is to be observed also that the net earnings basis may prove unfair to the main company when the subsidiary is controlled by an independent board of directors. Such an independent board of directors, having the interests of the subsidiary solely in mind, may manipulate the operating expenses —especially the maintenance accounts—so that the net rental which the main company is forced to pay shall be unfairly large. Such cases are, obviously, rare; but they illustrate the possibility of manipulation of accounts when there is a conflict of interests between the lessor and the lessee.

Fixed Rental Leases.—These difficulties proved to be serious obstacles in the building of railway systems. The contingent rental must be fair, and not open to the accusation of secret manipulations. Yet at the same time the leasing road should be given the benefits of its abler and more highly organized operation. The latter would not assume the responsibility of the lease without the benefits which would be likely to increase through the years. For these reasons fixed rentals have been preferred over any form of contingent rental and their use, as compared with contingent rentals in any form, has increased during each succeeding period of railroad consolidation.[10] They were, at the beginning of 1918, the only important leases.[11]

Uncertainty about the future was the reason which led to the early use of the contingent form of rental. But since 1876 the persistent optimism of railroad operators has led them to adopt, almost universally, the fixed rental on the assumption that the future is brighter than the past. This optimism has been based on a confidence in their own effectiveness of management and on the economies incident to mere consolidated operation. They have believed that their own skill of operation could secure a margin of unrealized profit not available to the older management of the leased line. They have believed also that when separate and perhaps competing lines are operated as a single unified system, with all the apparent wastes of independent operation eliminated, increased profits necessarily result as a mere by-product of consolidation.

The differences in form of fixed rental payments are not as important as would appear at first sight.[n] In most cases there were outstanding, at the time the lease was originally written many years ago, considerable amounts of stocks and bonds in the hands of the public. In the majority—but by no means all—of the leases of this character, the parent road has gradually acquired the stocks and often the bonds of the leased road, so that the payment of the fixed rental is merely

---

[n] There are five or six different types depending on the manner in which the fixed rental is paid. The commonest is the guaranteed dividend payment on the outstanding stock of the leased line after the full payment of the fixed charges, if such exist. This is the ordinary form for the Boston and Maine and the New York, New Haven and Hartford leases, where the fixed rental is still of greatest importance. In most cases of long-standing leases the dividends are paid directly by the main company—they become, in effect, assumed dividends. In fact the rental payments under long-standing leases are often regarded as the same as fixed charges on bonds, except in name.

---

[10] See page 721. Excluding the Pennsylvania system for reasons explained on page 721 at least 23 per cent of the important railroad leases were contingent in 1893 and only 11 per cent in 1918.

[11] See page 721. In cases in which old contingent rental leases still existed—like the numerous net rentals on the Pennsylvania system—the parent or leasing road had acquired absolute ownership of all the stock of the leased subsidiary so that the allocation of the contingent rental was merely a matter of intercompany accounting.

a bookkeeping adjustment involving the transfer of credits from one account to another. When considering the lease, indeed, merely as a device for consolidating railway lines, the fixed rentals are significant only in the smaller number of cases in which the leased line securities are still in the hands of the public. It is important, however, to note that the number of such cases, especially among New England lines, is still sufficiently numerous to present an important and often embarrassing problem.

The device of fixed rentals with large amounts of the leased line's stock remaining in the hands of the public has great advantages to the parent road during the time that the prosperity of the railroads is ascending. It then shuts out the old leased line's security holders from the increased profits due to greater prosperity and gives to the controlling management the full fruits of increased economy and efficiency of operation. But just the reverse is true when the lease is consummated before or during a period of declining prosperity. In that case the security holders of the leased road may demand their rental whether or not it has been earned. The charge has become fixed and inflexible and its default would precipitate failure of the whole consolidated structure.[o] And it is unquestionably true that with the further development of railway consolidation, under the encouragement of the Cummins Act of 1920 rather than the discouraging prohibitions of the Sherman Act of 1890, the lease will dwindle to insignificance as a means of consolidation. In forced reorganizations, like that of the Boston and Maine, it has, so far as possible, been superseded by direct consolidation. And this change is des-

---

[o] The truth of this is manifest from the rather pathetic history of the Boston and Maine (figures in even thousands, year ending, June 30).

	1912	1913	1914	1915*
Net Income before Fixed Charges	$9,833,000	$9,931,000	$9,152,000	$9,984,000
Miscellaneous Charges	1,265,000	2,022,000	2,391,000	1,702,000
Interest	2,084,000	2,547,000	3,318,000	3,027,000
Balance	6,484,000	5,363,000	3,443,000	5,255,000
Rentals to Leased Lines	5,194,000	5,313,000	5,488,000	5,589,000
Balance for Stockholders	+ 1,290,000	+ 50,000	− 2,045,000	− 334,000

* Year prior to the receivership.

See also Book III, Chapter V, note a, and Chapter VI, note d. The method of presenting the figures in these two previous notes was somewhat different.

tined to occur in the future in all cases where the fiction of a lease is not required as a legal subterfuge. Nevertheless it has a great historical significance in the development of American railway consolidation.

Statistical studies were made of most, if not all, of the important railway leases in force in 1893, the year of the close of the second period of railway consolidation in America, and in 1918, just prior to the assumption of government control. The results have been referred to several times in the immediately preceding pages. Because of the laws of Pennsylvania on the one hand, and the early traditions of the Pennsylvania Railroad officials on the other, the leases of the Pennsylvania system belong to a class by themselves. In these studies small lines less than twenty miles in length have for the most part been omitted.

SUMMARY OF CONTINGENT AND FIXED RENTALS—1893[12]

	Gross Rentals	Net Rentals	Fixed Rentals
Excluding Pennsylvania and Allied Roads (256 cases studied)	44	16	196
Percentages	17%	6%	77%
Pennsylvania Railroad:			
Owning No, or a Minority Stock Interest	. .	6	6
Owning a Majority Interest or All Stock	. .	33	. .
Pennsylvania Company:			
Owning a Majority Interest or All Stock	2	9	5
Totals (Including Pennsylvania)	46	64	207

SUMMARY OF CONTINGENT AND FIXED RENTALS—1918[13]

	Gross Rentals	Net Rentals	Fixed Rentals
Excluding Pennsylvania and Allied Roads (205 cases studied)	11	13	181
Percentages	5%	6%	89%
Pennsylvania System	. .	9	13

A lease, whatsoever the form of compensation, is a relatively weak and uncertain means for effecting consolidation. Its very economy, even, is not always an advantage, for what is cheaply got is often easily lost. If the union is very important to the consolidated system, a railroad management will not, ordinarily, allow it to rest on a mere lease. The stockholders of the leased line might find some excuse for canceling the lease directly; or they could allow their road to be thrown into the hands of a court receiver who would then cancel the lease as an undesirable contract inherited from the past management.[14] The leasing road would be helpless in either event to prevent the action or even to collect damages from the receiver or the reorganized road. In order to prevent any such misfortune, leasing railroads have always sought to reinforce the lease by the purchase of at least a portion of the stock of the leased road. This introduces at once the second great type of consolidation expedients, namely that of stock control.

---

[12] Owing to the peculiar and individual circumstances surrounding the development of the Pennsylvania system, the total in the first line is more significant of the railroads of the country at the close of the second period of consolidation than the totals including the Pennsylvania lines.

[13] The Pennsylvania Railroad owned in 1918 all or practically all the stock of its net rental leased lines, so that the lease is merely a legal fiction.

Stock Control by Purchase.—Ever since the consolidation of railroads commenced, it has been the policy of railroad managers to purchase at least a minority stock interest in the railroads the operation of which was important for the main system.[p] This was true, even when the subordinate road was controlled by lease. And if the subordinate road is of essential importance, it is probable that those in control of the consolidated system will insist on obtaining sufficient stock to secure a majority stock control in addition to the lease.[q]

The advantage of consolidation through ownership of a portion of the stock of a railroad, rather than complete ownership, lies in the greater economy. Complete control is secured, moreover, if a majority of the shares are acquired, so that the

---

[p] This was well stated by Edgar Thomson, the President of the Pennsylvania Railroad during the period of its growth: "It was early foreseen that a trunk line, intended to accommodate the traffic between the East and the West, would fail in its object if wholly dependent upon the uncertain navigation of the Ohio River as a feeder. . . . To overcome this disadvantage, it became essential that other lines connecting your road with the trade centers of the West should be commenced, and to effect this, direct and efficient aid by this company toward their construction was necessary." 20 Penn. R.R. Rep. 10 (1867).

[q] This was illustrated exactly by the early history of the corporate relations between the Pennsylvania Railroad and its Chicago extension, the Pittsburgh, Fort Wayne and and Chicago Railroad. See page 745 for a description of the early history of the Pennsylvania's West of Pittsburgh lines.

---

[14] See Book V, Chapter III.

danger of the repudiation of the lease is not present as when the road is held by a contract of lease alone; yet the investment is small compared with that required for the outright purchase of the road. Especially is this true if the subsidiary road has a considerable bond issue which would have to be paid off before absolute title could be acquired. It is this security of control, combined with the small money outlay that has made this method of consolidation the usual one in the history of American railways.

All manner of combinations of the lease and the stock control are to be found in the annals of American railway consolidation.[15] And very frequently the lease is employed as a reinforcement to stock control, just as stock control is used to reinforce a lease. But in theory the two methods are distinct. The stock control involves the outright ownership of sufficient of the voting stock to give the main road absolute executive management of the subsidiary. It selects the board of directors. It initiates matters of policy with the same autocracy as for its own lines. The control is permanent and absolute, so that the directors of the consolidated system may look upon the subsidiary road in their plans about the future as if it were, to all intents, their own absolute property. For this reason, control through stock ownership permits greater scope and comprehensiveness in determining policies than control merely through a lease.

In acquiring stock control three important methods have been followed. The simplest is of course the outright purchase of a railroad's shares, either at private sale or on one of the exchanges. Ordinarily a large road, wishing to acquire stock control of a smaller road, ascertains by inquiry the names of the road's largest stockholders. Its representatives then make overtures looking toward the outright purchase of a sufficient number of shares to give it control. Having arranged for the purchase of a large or majority interest from a few of the most important stockholders, the road then announces publicly that it will purchase all the stock offered to it at a specific price, reserving to itself the right to withdraw the offer at any time. The road is thus enabled to retire from the market as soon as it has acquired the requisite control, or it may continue to purchase all the shares offered in the hope of obtaining not only a majority of the shares but also the entire capital stock.

---

[15] Such combinations are illustrated at every turn in the present chapter. For a variety of concrete cases, see the exchanges of stock following leases represented in the New Haven system, page 727.

When the stock of a small line is widely held, or when two railroads are seeking to acquire its control, it may be necessary to go to extreme lengths in picking up the stock. Instances have been known of the agents for the purchasing railroad going from house to house among the stockholders in order quickly to secure a majority of the shares. If, however, it does succeed in acquiring the entire outstanding capital stock, the larger operating road becomes relieved, forever, from the fear of any legal interference or obstructions arising from a small but recalcitrant minority.

Stock Control by Exchange.—Another method of obtaining stock control, at the time of railway consolidation, is through an exchange of stock. This method was very common in the period during which the large railway systems were being built up—down to the panic of 1893.[16] In fact some very important railway systems came into existence, originally, through an extensive exchange of the stocks of numerous small lines for the stock of a new company formed for the very purpose. This was the origin of the New York Central.[17] This method of consolidating by an exchange of stocks has the advantage over outright purchase in requiring no direct money expenditure, so that no financial expedients have to be adopted in order to obtain money. On the other hand, it was usually necessary for the road that acquired the stock of another through exchange of its own shares to make a particularly favorable offer to the shareholders of the other road in order to tempt them to surrender control of their property. This is expensive, when viewed as a dilution in the value of the purchasing road's own stock. In a number of instances the advantage of securing a stock of greater marketability is quite as effective in leading the shareholders of a small local road to exchange their stock for that of a large road at an apparent profit; in some cases the prosperity of the small road is so closely connected with that of the large road that the shareholders feel that their investment is better protected when made an integral part of the consolidated system.

---

[16] See illustrative example of the New Haven system, page 727 hereafter.

[17] See page 737 of this chapter.

An illustration of this principle is shown in the acquisition of the old New York, Providence and Boston Railroad by the New York, New Haven and Hartford Railroad in March, 1892. The former road was, in effect, an integral part of the New Haven Railroad's "Shore Line," forming the link between Providence and New London. All the traffic of the road reached New York over the New York, New Haven and Hartford from New London, except that carried on boat by the New London and Stonington lines. It had little value if separated from the New Haven Railroad, yet in connection with the latter it was very prosperous, having paid 10 per cent dividends on its stock since 1886. The $5,000,000 of stock had a narrow market. The $23,375,000 of the New Haven Railroad's stock was quoted on the New York Stock Exchange and therefore had a wide market. It had paid dividends of 10 per cent for many years. From every point of view it was desirable for the shareholders of the New York, Providence and Boston Railroad to consolidate their road with the New Haven road. Accordingly they accepted an offer of exchange of their stock for that of the New York, New Haven and Hartford Railroad, the latter increasing its capitalization to provide the requisite stock.

The fact is that several railroad systems have been built up by supplementing the control through a lease by the acquisition of the leased-line stock through exchange. The Pennsylvania system, especially in the years from 1865 to 1880,

Original Consolidation, 1872

Lines Consolidated	Terminal Points	Year Opened	Mileage, 1872	Bonded Debt	Capital Stock	Fixed Charges	Dividend, Previous Year	Rate of Exchange into N. Y., N. H. & H. Stock
New York & New Haven..	Williamsbridge, N. Y., to New Haven, Conn.	1848	62	$1,061,500	$9,000,000	$63,690	10	1 for 1
Hartford & New Haven...	New Haven, Conn., to Springfield, Mass.	1844	75	580,000	6,500,000	34,800	10½	1 for 1 +$10.33

Exchanges of Stock up to 1893

Lines Consolidated	Terminal Points (main lines)	Year Opened	Mileage, 1893	Date of Lease	Term of Lease	Capital Stock	Bonded Debt	Div. Rate	Fixed Charges including Rental (1893)	Rate of Exchange into New Haven Stock	Amount Owned 1918
New York, New Haven & Hartford	See above	See above	149	......	....	$23,375,000	$ 2,000,000	10%	$ 80,000	....	....
New Haven & Northampton	New Haven, Conn., to Conway Jc., Mass.	1836	126	1887	forever	2,460,000	3,900,000	2	282,200	2 for 5	All
Naugatuck..............	Stratford Jc. to Winsted, Conn.	1836	61	1887	99	2,000,000	169,000	10	207,300	1 for 1	All
Boston & New York Air Line..................	New Haven to Willimantic, Conn.	1873	55	1882	99	3,862,731	525,000	4	146,690	2 for 5	All
Shore Line Railway.......	New Haven to New London	1852	49	1870	forever	1,000,000	200,000	7¼	100,000	3 for 4	All
Hartford & Connecticut Valley	Hartford to Fenwick	1872	46	1887	99	800,000	800	4	32,048	1 for 1	All
New York, Providence & Boston	Providence to New London	1837	136	1892	forever	5,000,000	2,300,000	10	569,220	1 for 1	All
Old Colony Railroad......	Boston to Providence and Provincetown	1835	603	1893	99	13,176,525	12,156,200	7	2,150,714	9 for 10	44%

strengthened its control over its leased lines by this means. This was the means employed almost universally in building up the New Haven system, and explains, more than any other single circumstance, why the New Haven Railroad emerged from the period of its consolidation with such a small amount of bonded debt in comparison to its share capital.

The unification of the New York, New Haven and Hartford Railroad system, as an operating railroad (not including its outside ventures) was practically completed in February, 1893, with the lease of the Old Colony. The railroad system as such had its origin in the consolidation effected in August, 1872, between the New York and New Haven Railroad extending from New York City to New Haven (and by a leased line to New London) and the New Haven and Hartford Railroad from New Haven to Springfield. Subsequently, down to 1893, other railroads were leased, but in almost every case provision was made for the exchange of the shares of the leased line for those of the New York, New Haven and Hartford Railroad. This is illustrated by the table above which includes the original consolidation in which the corporate existence of the New York, New Haven and Hartford Railroad began. These exchanges were successful, and by 1893 all the stock of the subsidiary had been acquired by exchange; except that in certain cases, notably that of the Old Colony Railroad, the exchange was not carried out as contemplated. In fact, by 1918, by purchase as well as exchange, the New Haven road held only 98,132 shares of the Old Colony out of a total of 222,940 shares.

Stock Control by Collateral Trust Bond.—Still another important way in which one railroad secures the control of the stock of another road is through the use of the collateral trust bond.[r] This is as characteristic of the period succeeding

---

[r] See previous discussion of the same subject from the point of view of the collateral trust bond. See Book I, Chapter V, page 127, and following.

The collateral trust bond was occasionally used before the panic of the panic of 1893, as the lease was of the period before. And, more than any other device, it has been used in building up the great "systems of systems" that characterized railroad consolidation between 1897 and 1907. Perhaps the most notable general use of the collateral bond in this particular is in the expansion of the Union Pacific following its reorganization in 1897,[18] and the most notable particular instance is the acquisition of the control of the Chicago, Burlington and Quincy Railroad by the Great Northern and Northern Pacific railroads.[19] The substitution of credit for money is the essential purpose that underlies the acquisition of the stock of one railroad by another through the issue of its own bonds secured by the acquired stock as collateral. A railroad wishes to purchase outright the stock control of another road, but it cannot command the necessary capital. It can, however, use its own credit. It can arrange with the owners of the stock to relinquish the stock in return for the bonds of the purchasing road, secured by the deposit of the stock surrendered. In this manner the collateral trust bonds given in exchange for the stock are secured both by the stock collateral and the general credit of

---

1873. For example, the Pennsylvania Company acquired direct ownership of the Pennsylvania Railroad's western connections in 1869. See note 42. The later borrowings of the Pennsylvania Company were based on the securities of these lines as collateral. In 1879 the old Union Pacific Railway issued collateral trust bonds because the government had forbidden it to increase its direct bonded debt in order to pay for extensions. But as few railroads were allowed to hold the securities of other roads without special legislative consent, the practice of purchasing securities and pledging these as collateral was seldom indulged in. After 1880 collateral trust bonds were used with increasing frequency to secure funds to reimburse the main line treasury for expenditures in building miscellaneous small branch line extensions. See Book I, Chapter V, note 19. After 1893 they were used extensively for the purpose of consolidating railway systems. See page 730 below.

---

[18] For extended discussion of the use in connection with the expansion of the Union Pacific Railroad, see Mitchell, T. W., "The Collateral Trust Mortgage in Railway Finance," 20 Quart. Jour. Econ., 443 (1906); *ibid.*, "The Growth of the Union Pacific and its Financial Operations," 21 Quart. Jour. Econ. 569 (1907); 12 I. C. C. Rep. 319; Daggett, S., "The Decision on the Union Pacific Merger," 27 Quart. Jour. Econ. 295 (1913); Daggett, S., "Later Developments in the Union Pacific Merger Case," 28 Quart. Jour. Econ. 772 (1914). Also brief account in Ripley, W. Z., Railroads, Finance and Organization, 499 (1915).

[19] This particular episode in American railway history has been described many times. See long list of titles referring to this, and the aftermath, the Northern Securities Company, in the "List of Books Relating to Railroads in their Relation to the Government and the Public," published by the Library of Congress. Also Meyer, B. H., A History of the Northern Securities Case, Bull. Univ. of Wisconsin (1906).

the purchasing railroad. While the stockholders that sell their stock get no cash, they are certainly as well off as they were before, since they still have a lien on the stock and, in addition, whatever value attaches itself to the bond as a direct obligation of the purchasing railroad. In some cases this additional value is very great.

There were many instances during the thirty years from 1880 to 1910 in which the collateral trust bond was used by one railroad system to acquire stock control or even entire stock ownership of another railroad. Three notable examples require more than mere passing comment because of the extent and importance of the railway mileage involved. In 1898, the New York Central and Hudson River Railroad found it necessary—as the Pennsylvania Railroad had found it necessary thirty years before—to acquire absolute control and ownership of its Chicago extension. Accordingly, the directors of the New York Central and Hudson River Railroad offered to give to the stockholders of the Lake Shore and Michigan Southern Railroad a collateral trust bond, $1,000 in denomination and bearing 3½ per cent interest, in exchange for five shares of stock. The stock was deposited as collateral for the bonds. The Lake Shore stock had been paying 6 per cent dividends since 1888 and large sums had been invested in the property out of earnings. The shareholders had an apparent increase of income. At the same time they obtained, in addition, a direct obligation of the New York Central system that ranked ahead of the large investment of the Central's stockholders, and were well protected against the further issue of mortgage bonds.[s]

---

[s] Among the protecting clauses was the restriction that the old New York Central and Hudson River Railroad should issue thereafter no bonds having a priority over these collateral trust bonds. In the final corporate merger in 1914 of the New York Central and Hudson River Railroad with the Lake Shore and Michigan Southern, it was found necessary to increase the rate of interest from 3½ to 4 per cent, giving to the holders a refunding junior mortgage lien bond. Only in this way could the New York Central Railroad have complete freedom to provide for its future financial requirements.

In 1902, when the movement in the direction of the consolidation of great railway systems reached its greatest scope, two large issues of collateral trust bonds were used to acquire control of the stock of two great railroad systems—the Louisville and Nashville, and the Chicago, Burlington and Quincy. In the former case the Atlantic Coast Line acquired the majority of the stock of the Louisville and Nashville Railroad as the outcome of a speculative raid. There was, apparently, no preconceived plan on the part of the Atlantic Coast Line to secure control of the Louisville and Nashville. Yet, as a result of the efforts of a certain Wall Street gambler, a majority of its shares had been brought together and were offered for sale. To place them under the control of the Atlantic Coast Line seemed on the whole the best solution of the difficulty, and the collateral trust bonds of the Atlantic Coast Line were issued to secure the necessary funds.[20]

The acquisition of the stock of the Chicago, Burlington and Quincy Railroad by the roads controlled by the late James J. Hill was, on the other hand, the result of a preconceived plan. Neither the Great Northern nor Northern Pacific Railroad had an eastern terminal in Chicago. This was a very serious handicap in the competition for transcontinental traffic. Especially was this true as the Union Pacific had a closely affiliated Chicago connection in the Chicago and Northwestern Railroad and the Atchison reached Chicago over its own tracks. Accordingly the directors of the two northern railroads offered to give to the stockholders of the Chicago, Burlington and Quincy Railroad—many of them New England investors—$1,000 par value in the 4 per cent joint bonds of the Great Northern and Northern Pacific railroads in exchange for each five shares of the Burlington Company's stock. These bonds were to be secured, in addition to the joint and separate guarantee of the two railroads, by the deposit with the trustees of the Burlington stock. Practically all the stockholders of the Burlington road accepted the offer, and, without the use of any of their own capital the two Hill roads secured the absolute control of one of the finest railway systems in the world.[21]

---

[20] For brief description of the Gates raid on the shares of the Louisville and Nashville Railroad, see Ripley, W. Z., Railroads, Finance and Organization (1915). An extended description of the incident is given in Dozier, H. D., History of Atlantic Coast Line, 147 (1920). To indicate how casual and often incidental are the occasions for this "pyramiding" of railroads, the following brief account from the *New York Evening Post* is at least amusing and, perhaps, illuminating:

"While discussing the stock market with his 'buccaneer' associates, early in 1902, at an uptown hotel, Gates casually met one of the southern directors of the Louisville with the usual: 'What do you know?' To impress the plunger with his importance, the Louisville director replied: 'We are going to issue $5,000,000 new stock for working capital.' Gates attached no importance to the chance information until a few days afterwards when Louisville began to decline sharply on what appeared to be inside selling. Remembering his brief conversation with his Louisville acquaintance. Gates quickly conceived the idea of setting a trap for the Louisville directors, who appeared to be sellng short for a turn, on the theory that the new stock issue would temporarily depress prices. Gates bought all of the shares offered, advancing the price from around 105 in April, to 146 in May. Then he made the discovery that he had an actual majority of the $55,000,000 outstanding stock. J. P. Morgan then bought Gates' stock and sold it to the Atlantic Coast Line." *New York Evening Post,* November 8, 1913. Contemporary references to this important incident, see 34 Rd. Gaz. 759; *New York Times,* April 10, 11, and 16, 1902; 74 Chron. 775, 833; 75 Chron. 830.

The evil of pyramiding of credit by the issue of collateral trust bonds occurs when the earnings of the road whose stock is acquired fail to permit a dividend sufficient to carry the interest on the collateral trust bonds. As in the case of the fixed rental, the plan works very well so long as the earnings of the newly acquired road equal or exceed the cost of carrying it. But railway earnings fluctuate. And the experience of several roads which have followed this plan of consolidation has been very unfortunate. In fact the receivership of the Toledo, St. Louis and Western Railroad in 1914 was due to this cause and this cause alone.[t] In other receiverships it has been an important contributing cause.[22] Nevertheless the collateral trust bond has been and is still used as the simplest and distinctly the cheapest means of pyramiding railroad properties.[u]

---

[t] In August, 1907, the Toledo, St. Louis and Western Railroad acquired 64,800 shares out of 195,579 shares of the 4 per cent non-cumulative preferred stock of the Chicago and Alton Railroad and 144,200 shares out of 195,428 common shares of the same railroad. The Toledo, St. Louis and Western Railroad issued $11,527,000 collateral trust bonds—with the Chicago and Alton stock as collateral security. Approximately $6,500,000 of these bonds bore immediately 4 per cent fixed interest and approximately $5,000,000 bore 2 per cent until 1912 and 4 per cent thereafter. These collateral trust bonds involved a fixed charge in 1908 of $365,000, and the dividends on the Chicago and Alton stock amounted to $836,000, the maximum amount received in any one year. In 1913 the charges on the bonds amounted to $460,000 and the Alton paid no dividends. In fact the Alton showed a deficit after charges of $1,900,000. (The dividends on the Alton's preferred stock had ceased in 1911 and on the common in 1910.) This burden was temporarily absorbed by the Toledo, St. Louis and Western's own earnings. But in the autumn of 1914, the latter's earnings showing a marked falling off, a receivership became necessary. Except for a short period in 1914 the earn-

[21] See page 728, note 19.

Outright Purchase.—The third general method of consolidating railroads is by complete, outright purchase. It is the most expensive method, requiring a large outlay, but it results in the most complete and permanent union possible among railroads. Sufficient money must be advanced by the purchasing road to pay for the outstanding stocks of the road to be acquired and in addition sufficient to meet all its outstanding liabilities. Because of this heavy outlay of capital, the outright purchase of one road by another is resorted to ordinarily only either if the road is small so that the actual money outlay is relatively insignificant, or else if it is possible to arrange a direct transfer of liabilities. These two types of direct purchase do not require more than a passing comment.[v]

---

ings of the Toledo, St. Louis and Western have been more than sufficient to meet its own interest charges.

[u] The following table expresses, in summary form, some of the best known cases of direct consolidation by the acquisition of the stock of one railroad by another railroad by the issue of the collateral trust bonds of the latter road. The bonds were exchanged directly for the stock.

Purchasing Road	Stock Acquired	Date	Par Value Bonds for Each $100 of Stock	Interest Rate on Bonds
New York Central	Lake Shore	1898	$200	3½%
New York Central	Michigan Central	1898	115	3½
Southern	Mobile and Ohio	1901	100	4
Reading	Central of New Jersey	1901	160	4
Great Northern & Northern Pacific	Burlington	1901	200	4
Rock Island	St. Louis and San Francisco	1903	60	5
Toledo, St. Louis & Western	Chicago and Alton	1907	100 (pfd) 35 (com)	4

[v] There is also another reason which has, in a few cases, led to outright purchase. It is when two railroads are each competing for the purchase of a third. In such cases it may be necessary for the successful road to pay for its purchase quickly and with ready money. In 1881 the Baltimore and Ohio Railroad and the Pennsylvania Railroad each sought control of the old Philadelphia, Wilmington and Baltimore (subsequently the Philadelphia, Baltimore and Washington). The Pennsylvania Railroad was successful in securing the property mainly because it was able to pay the actual money demanded by those in control of the sale.

---

[22] St. Louis and San Francisco, more especially.

The simplest and in a sense the most direct case of outright purchase is when a large, opulent main-line railroad purchases a small road in essentially the same manner that it might purchase a locomotive or a postage stamp. The small road, we may presume, was probably built by a group of local business men. Their purpose in building the road was quite as much, probably, to improve the industrial facilities of their city as to obtain a profit. Often the local banks supplied considerable amounts of money and these advances were carried by notes, regularly renewed at stated intervals. The stock, let us say, is held by a few men—not more than half a dozen at most. The little road is the source of a considerable amount of through traffic and is therefore of value to the main-line connecting railway system. Under these circumstances it may happen that the main-line railroad, not wishing to be burdened by the complex financial network which the local capitalists have woven about their little road, will offer a certain sum of money for the railroad itself as a going concern. This offer, if accepted, will involve the transfer of the actual railroad property—the franchises, right-of-way, stations, yards, and moving equipment—free from all encumbrances. It will require that the director-owners pay off all the bank loans, merchandise accounts, and other debts before the property can be transferred. When this has been done, they can then divide what remains from the purchase price, if anything, among the stockholders. But neither the complexities of corporate organization of the little road nor the particular disposition of the purchase money is of any concern to the main-line railroad. Its only concern is to acquire the actual physical property of the little road, divested of all liens and liabilities. From its own point of view the value of the road is not sufficiently large to make it worth while for the main line to engraft the financial intricacies of the little road upon its own financial structure.

The other case of direct purchase applies to a larger railroad and involves a transfer of liabilities. One railroad desires to acquire absolute title to another railroad, believing that mere stock control is insufficient for its purpose. Yet the railroad to be purchased has outstanding a large issue of bonds, bearing a low rate of interest and quoted on the exchange for less than the face value. To buy or redeem this entire issue of bonds—a necessary procedure in order to acquire complete title to the railroad—would require too much capital. On the other hand, the purchasing railroad is able to command enough money to buy the entire outstanding stock and to pay off all the debts of the road except this issue of bonds. In a case like this the one railroad may acquire title to and complete ownership of the other, subject to the bond issue. These bonds then become a direct liability of the purchasing railroad, in addition to whatever specific security they originally had. In technical language they are assumed bonds.[23] This assumption of underlying bonds is often a consideration of great value. In fact the mere explicit assumption of the bonds of a small line has been, not infrequently in the history of railroad extension and consolidation, the only price a large and established railroad has had to pay for the acquisition of a small line.[w]

Historical Periods of Railway Consolidation.—The application of these forms and devices by which railroad consolidation and expansion has occurred will become clear from a summary statement of railroad consolidation in the United States. This is a subject of great significance to American corporation finance, because many of the expedients employed in the consolidation of other industrial units arose in response to a social demand which required operating—and incidentally financial—unity among railroads.

---

[w] The Washington County Railway of Maine was completed in 1899 through the efforts of Grant B. Schley, a prominent New York banker born in that section of the state. It failed to meet operating expenses. In 1903 the proprietors consented to refund their issue of over $2,000,000 of 5 per cent fifty-year bonds due in 1948 and representing the construction costs of the road into 3½ per cent bonds due in 1954, and surrender to the Maine Central Railroad their entire stock interest. In return the Maine Central Railroad guaranteed, principal and interest, the payment of the new bonds.

[23] See Book I, Chapter VI.

The history of railroad consolidation in the United States may be roughly divided into three periods of unequal length, according to the extent and the character of the prominent railway consolidations of the period. Down to the early fifties railroads were built as small, separate, distinctly local enterprises.[x] Railroad consolidation, in the broad sense in which the term is used in the present chapter, did not occur until about 1855.[y] From then until the depression following the panic of 1873, small local railroads all over the East and Middle West were jointed together longitudinally to form through lines between large cities. A second period of railway consolidation began in the later seventies when these through lines were connected with each other, and with lateral branches, to form railway systems. Just before and following the many railway reorganizations of the middle nineties, a third period of consolidation set in during which the widely articulated systems created during the previous period were still further unified into great, loosely organized railroad combinations. They became, as it were, systems of systems.

---

[x] A writer in an encyclopedia article remarked in 1852, at the close of the building of the small local roads and before a movement had been made toward consolidation: "The railroad system of the United States is now being gradually developed towards completion by the annual filling up of gaps in connections which, perfected, present a mighty network of rails that put every section of the Union in familiar communication."

In the introduction to the initial volume in Poor's Manual of Railroads, Henry V. Poor, commenting on the general course of early railroad building, stated the matter clearly: "The construction of railroads in the United States has proceeded without reference to any general system and without anything like supervision or oversight by the different states. . . . Railroads and canals were at first undertaken almost universally as local works and for local and sectional objects." Poor's Manual of Railroads of the United States, 32 (1868).

A study of the promotions and early directors of the New England railroads indicates that three groups of men were instrumental in the early promotions. There were, first, the large Boston merchants, ship-owners, and bankers, who constituted the "backbone" of New England's commercial supremacy in the period between 1820 and 1850. These men had accumulated large fortunes in shipping and sought new avenues for capital investment and speculation. They were men of broad vision, great courage, and accustomed to take risks. The second group were the local manufacturers located usually inland at fall towns, who regarded the railroad as a means of extending their markets. The third class comprised the local store keepers, and "chief citizens" along the line. They were led to back the new railroads chiefly from pride in helping their towns and from the self-gratification and local prestige in being connected with a business enterprise engaging the attention of the Boston merchants and the "chief citizens" of neighboring towns. Of the first directorate of the Fitchburg Railroad, two members were prominent Boston merchant-bankers, the president was a paper manufacturer of Fitchburg, two directors were cotton manufacturers of Acton and Shirley, another was a chair manufacturer of Fitchburg, and another a lead pipe manufacturer of Concord. Most of the others were local storekeepers or district lawyers and politicians. See Willis, H. A., Early History of Railroads in Fitchburg (1892), and Willard, S., History of Middlesex County. A similar personnel is to be found among the builders of the other early New England roads.

[y] Such a statement, like so many historical generalizations, is subject to numerous exceptions. Cleveland and Powell mention a case of end-to-end consolidation—characteristic of the period after 1850—as early as 1838. This was the formation of a through line between Philadelphia and Baltimore by the union of the Philadelphia, Wilmington and Baltimore, the Wilmington and Susquehanna, and the Baltimore and Port Deposit railroads. Cleveland and Powell, Railroad Finance, 274 (1912).

First Period of End to End Consolidation.—During the first period of consolidation, roughly from 1855 down to 1873, small, local, end-to-end roads were brought under a single operating and financial organization. The purpose invariably was to establish better connection between two large cities

---

The period of mere building, without consolidation, ended and true railroad consolidation began in 1853 when the New York Central was formed. Prior to that time a railway journey was made up of various small journeys over connecting lines. For example in 1852, before the longitudinal consolidation of railroads had begun a passenger traveling along the great north-south artery of travel would use eighteen different roads between Augusta, Maine, on the north, and Montgomery, Georgia, on the south.

Points of Connection	Distance Traversed	Railroad	Approximate Year Railroad Completed
Augusta to Portland	63	Kennebec & Portland	1852
Portland to Portsmouth	51	Portland, Saco & Portsmouth	1842
Portsmouth to Boston	56	Eastern Railroad	1841
Boston to Worcester	45	Boston & Worcester	1835
Worcester to Springfield	54	Western	1839
Springfield to New Haven	62	Hartford & New Haven	1848
New Haven to Williamsbridge	63	New York & New Haven	1848
Williamsbridge to New York	13	New York & Harlem	1841
New York to South Amboy	18	Steamboat ferry	....
South Amboy to Camden	63	Camden & Amboy	1834
Philadelphia to Baltimore	98	Philadelphia, Wilmington & Baltimore	1838
Baltimore to Washington	31	Baltimore & Ohio (Washington branch)	1835
Washington to Acquia Creek	35	Steamboat	....
Acquia Creek to Richmond	75	Richmond, Fredericksburg and Potomac	1841
Richmond to Petersburg	22	Richmond & Petersburg	1838
Petersburg to Weldon	61	Petersburg Railroad	1832
Weldon to Wilmington	162	Wilmington & Weldon	1840
Wilmington to Kingsville	171	Wilmington & Manchester	1852
Kingsville to Branchville	37	South Carolina Railroad	1833
Branchville to Augusta	76	South Carolina Railroad	1838
Augusta to Atlanta	171	Georgia Railroad & Banking Company	1839
Atlanta to West Point	87	Atlanta & West Point	1842
West Point to Montgomery	89	Montgomery & West Point	1844

It is interesting to note that when the South Carolina Railroad was opened in September, 1833, from Charleston to Hamburg, opposite Augusta, Georgia, a distance of 132 miles, it was the longest continuous railroad in the world.

rather than to develop railway systems. The first, and for a time the most important, of these end-to-end consolidations was that of the five connecting roads constituting a through line from Albany to Buffalo. These five roads, with various lateral and parallel branches, were united in the summer of 1853 to form the New York Central Railroad. This was the first of the important end-to-end consolidations, and, for historical reasons, if for no other, it has considerable interest. The New York Central Railroad, as originally formed, represented the consolidation of five end-to-end roads constituting a connected line from Albany to Buffalo, together with eight smaller roads representing lateral branch and projected lines. The promoters of the new company agreed to pay stock of the new company, the New York Central Railroad, to the extent of the par value of the stock of the old roads. In addition, the owners of the old roads were to receive varying rates of premium—approximately the market value above the par value—for their stock in the 6 per cent bonds of the Central. Certain bonds and advances to other roads were to be refunded in these same bonds, as also were the floating debts of the separate roads. The table on page 738 shows the financial plan.

The roads had all been prosperous in the years before the merger. Accordingly, while the par value of the securities issued by the New York Central far exceeded the cost of the properties, it was not excessive on the basis of their earning capacity. This is shown indirectly by a table compiled by the New York State Engineer based on the business of 1848, five years before the consolidation. (See page 739.)

Three years after the organization of the original New York Central Railroad this end-to-end method of consolidation showed itself in the West in the formation of the Chicago, Burlington and Quincy by the union of the Chicago and Aurora and the Central Military Track Railroad. In New England, end-to-end consolidation by lease appeared when, in 1861, the old Concord Railroad and the Manchester and Lawrence agreed

PLAN OF CONSOLIDATION OF THE NEW YORK CENTRAL IN 1853

MAIN LINE ALBANY TO BUFFALO

Name of Road	Length of Line	Originally Chartered	Completed	Stock, Including Bonds Convertible into Stock	Stock of New York Central Issued in Exchange	Premium on Stock Recd. in Bonds	6% Bonds of New York Central Issued in Exchange for Premiums on Stock	Debts Converted into 6% Bonds	Total Bonds of New York Central
Main Line End-to-End Roads:									
Albany and Schenectady	17	1826	1831	$ 1,621,800	$ 1,621,800	17	$ 275,706	$ 226,823	$ 502,529
Utica and Schenectady	78	1833	1836	4,500,000	4,500,000	55	2,475,000		2,475,000
Syracuse and Utica	55	1836	1839	2,700,000	2,700,000	50	1,350,000	126,000	1,476,000
Rochester and Syracuse (a cons'n in 1850)	104			5,608,700	5,608,700	30	1,682,650	756,000	2,438,650
Auburn and Syracuse		1834	1843						
Auburn and Rochester		1836	1842						
Rochester and Syracuse Direct		1849	1852						
Buffalo and Rochester (a cons'n in 1850)	75			3,000,000	3,000,000	40	1,200,000	200,000	1,400,000
Tonawanda		1832	1837						
Attica and Buffalo		1836	1838						
Totals of Main Line				$17,430,500	$17,430,500		$6,983,356	$1,308,823	$8,292,179
MINOR ROADS INCLUDED IN CONSOLIDATION									
Lateral and Branch Line Roads:									
Rochester, Lockport and Niagara Falls (a consolidation in 1849)	77			$ 2,155,100	$ 2,155,100	25	$ 538,775	$ 476,000	$1,014,775
Lockport and Niagara Falls		1834	1838 (unfin.)						
Rochester and Lockport		1837							
Buffalo and Lockport	12	1852	1854	675,000	675,000	25	168,619		168,619
Troy and Schenectady	21	1836	1842	650,000	650,000			100,000	100,000
Projected but Unbl't Rds, Fr'chise Value Only:									
Syracuse and Utica, direct		1853		600,000	600,000	50	300,000		300,000
Mohawk Valley		1852		1,575,000	1,575,000	55	866,250		866,250
Branch Lines Leased for Two Years and Consolidated in 1855:									
Buffalo and Niagara Falls	22	1834	1845 (unfin.)	565,000	565,000				
Niagara Falls and Lewiston	8	1836		354,260	354,260				
Rochester and Lake Ontario	9	1852	1853	150,000	150,000	25	37,500		37,500
Subscription to Great Western R.R. of Can.								903,200	903,200
Totals for Minor Roads				$ 6,724,360	$ 6,724,360		$1,911,144	$1,479,200	$3,390,344
Total New York Central Stock issued in whole consolidation									$24,154,860
Total New York Central Bonds issued in whole consolidation									11,682,523
Total Securities issued									$35,837,383

Statistics of New York Central Roads, 1848

Name	Cost of Road	Cost per Mile	Net Revenue, Percentage of Cost
Albany & Schenectady	$ 1,606,096	$94,985	6.2
Utica & Schenectady	3,227,946	41,384	16.4
Syracuse & Utica	1,968,036	37,273	13.1
Auburn & Syracuse	1,225,886	43,303	9.1
Auburn & Rochester	2,644,520	33,904	10.2
Tonawanda	974,865	22,410	18.2
Attica & Buffalo	821,313	26,073	10.3
Total cost (1848) main line Albany to Buffalo	12,467,662	37,935	12.1
Rochester and Syracuse direct, built between 1850 and 1852, cost*	622,000	......	....
Total cost	13,089,662	......	....
Total securities of the New York Central issued for these main line roads†	25,722,679	......	....

* Second Annual Report, Rochester and Syracuse Railroad (1852).
† See table below, first part—"Main line Albany to Buffalo."

to the joint operation of their roads together with the lease by the former of the Portsmouth and Concord Railroad and the Manchester and North Weare Railroad. By 1873 there were no less than 69 of such end-to-end consolidations of more than 200 miles in length. The average length of all these 69 consolidations was only 389 miles and the longest, the Erie, was only 959 miles.[z] In some cases they represented mere end-to-end consolidations, without the construction of new mileage, except incidentally.[24] But in the majority of cases the consolidation represented the bringing into a single line of completed small railroads and others partially completed, but embarrassed for want of money to continue construction.

One of the earliest cases, of which the author can find specific reference, of this system of guaranteeing the securities of a connecting line was in 1849. It was the "linking-up," or end-to-end consolidation, of what was known as the "northern route"—a trunk line through northern Vermont and New York State to afford a direct connection between Boston and the Great Lakes. The Vermont Central was at the end of its resources. Its western connection, the Vermont and Canada Railroad, by which alone traffic could reach the Central from the Ogdensburg line and the Great Lakes, was unfinished. Accordingly the Vermont and Canada issued stock, the dividends on which were guaranteed by the Vermont Central, and the stock was marketed very largely (over half) as a high-grade "guaranteed" stock among Boston's conservative investors. The roads failed. Among these Boston investors were the Boston Children's Friends Society, the Trustees of Derby Academy, the Alliance Insurance Society, the Treasurer of the Society for Aged and Indigent Ministers; so that institutional trustees were quite as intelligent about investments in 1850 as in 1926. Ralph Waldo Emerson subscribed for 68 shares and Francis Parkman for 51 shares. The new company, in cases such as these, secured its charter for the express purpose of completing the unfinished sections of road and building other sections beyond. The methods and purposes of consolidation were about as varied as the consolidations themselves.[aa]

---

[z] These figures do not include the Union and Central Pacific railroads, approximately a thousand miles in length, as they cannot, in any way, be considered as end-to-end consolidations. Otherwise the figures include all roads, the main and branch lines—including lines leased and operated as part of the road—which exceeded 200 miles on January 1, 1873. The large components of what were then being welded into the "Pennsylvania system" were considered as separate railroads. Summary deduced from the lists given in Poor's Manual of Railroads for the year 1873. It is not strictly exact since it was often difficult to decide whether a road was independent or belonged to a loose consolidation.

[24] Like the New York Central, described above.

[aa] Such mixed motives are represented by the promotion of the old New York, Boston and Montreal Railway, a road which was to give a direct line between New York City and Montreal. The road was organized in January, 1873, as a combination of a series of small unconnected sections of line running northward from New York, and lying between the New York and Hudson River Railway and the New York and Harlem Railroad. The through route was to be created by filling in the intermediate links between the already completed sections, to build which several different charters were obtained.

Beginning at High Bridge (Harlem River) a charter was obtained in 1869 to build a line to Carmel and Brewster, known as the New York and Boston Railroad. The Putnam and Dutchess Railroad was then incorporated to build a line from Carmel to Hopewell.

Hopewell was a point on the Dutchess and Columbia Counties Railroad. This road had been incorporated in 1866 and 63 miles of it completed by local interests. It was acquired by the New York, Boston and Montreal as the third link in the chain. The fourth link was represented by a construction project, the Pine Plains and Albany Railroad, and a company was formed to build a line from Pine Plains on the border of Dutchess and Columbia Counties to Chatham. The fifth link was the old Lebanon

It was a question in every case of local expediency. Yet, behind this variety, it is important to observe that the chief characteristic of consolidations, throughout this period down to the panic of 1873, was the obvious purpose of establishing longitudinal through lines. Branch lines were absorbed and even built, but these were incidental to the main purpose of establishing through lines of communication. Railroad strategy and competition for territory were unimportant factors in shaping the course of consolidation.[bb] Questions of the gauge of the connecting lines played a part in shaping some consolidations; in others matters of local pride were mainly significant. But the paramount question throughout the period was that of getting through continuous service between large cities.

The Second Period—Railway Systems.—The second period, following the panic of 1873, centered about the formation

---

Springs Railroad extending from Chatham to Bennington, Vermont. The sixth link was the Bennington and Rutland extending between these two cities. The Bennington and Rutland had been built in the late forties, largely from the proceeds of bonds subscribed to by Vermont towns. It had failed in 1854, had been operated for a time by the trustee of the bondholders, then leased by another road, and finally in 1867 the lease was abandoned. In 1870 the road was consolidated with the Lebanon Valley as the Harlem Extension Railroad. The Vermont towns were allowed to foreclose on the lines covered by their mortgage bonds and the New York, Boston and Montreal Railway acquired the line at foreclosure sale. The seventh link was represented by the reorganized Vermont Central Railroad, carrying the line from Rutland to Montreal. The men behind the New York, Boston and Montreal acquired an option on a majority of the Vermont Central's stock. But before this option could be exercised or the intermediate links completed the panic of 1873 burst and the project failed after $11,700,000 had been expended. Subsequently the separate parts were disposed of at foreclosure sales.

[bb] Exceptions of course abound. And, as in so many other phases of railroad history, early precedents can be culled from the history of the Pennsylvania Railroad.

The Pittsburgh, Fort Wayne and Chicago Railway in 1863 emerged from receivership. At the first stockholders' meeting of February 25, 1863, a lively, even heated discussion took place as to whether or not the Fort Wayne road should "buy off" the impending competition from the yet unfinished Cleveland and Pittsburgh Railroad. One Mr. Ogden naïvely put the argument, "Competition would certainly reduce the receipts of the Pittsburgh, Fort Wayne and Chicago 20 per cent, to prevent which it would be advisable to enter into almost any contract. United, the policy of the two roads would be identical and the consequence would be a large increase of trade."[25]

---

[25] Pitts. Ft. W. and Chi. Ry. Rep. 9 (1863).

of railway systems. It is perhaps impossible to draw a distinct line between the two; and the distinction between a through line and a railway system is arbitrary indeed. Nor did the change of emphasis occur simultaneously in all parts of the country, so that the historical divisions we are insisting on here are admittedly crude and arbitrary. But it is an historical fact that prior to the panic of 1873 little effort was expended in developing unified, self-dependent, well-rounded railway systems,[cc] whereas in the years following the awakening of business in the late seventies this was the center of interest among railway operators. Their vision had become enlarged.

Aside from the natural desire of railroad owners and officials to expand their properties, several facts connected with the physical operation of railroads tended to promote the amalgamation of railways into systems. Perhaps the most prominent of these was the acceptance of a uniform gauge for all the railroads of the country. In 1865 there was no uniformity of gauge and great inconvenience and expense was involved in the trans-shipment of freight at connecting points between railroads having different gauges. These varied from 4 feet to 6 feet, although even before the Civil War the present standard gauge of 4 feet and 8½ inches predominated.[dd] By 1875 most of the roads of the Northeast and West had adopted the standard gauge, and the important roads having a wider gauge had laid a third or fourth rail to accommodate the interchange of rolling stock.[26] By 1886 the roads of the entire country had adopted the standard gauge [ee] and a loaded freight car could move freely over the whole national system of railroads.

[cc] As usual, the exception is to be found in the Pennsylvania. It had begun to develop a system within the first decade of its history—before 1855.

[dd] The reason for the adoption of the particular gauge that has become standard is a matter of historical accident. The early English railroads had a gauge of five feet. This was narrowed by 1¾ inches on either side when the flange wheel was adopted.

At the time of the Civil War practically all the roads south of the Potomac had adopted 5 feet as the standard gauge. This followed the precedent established by the South Carolina Railroad, the first important railroad of the South.

The original Camden and Amboy was laid with a gauge of 4 feet 10 inches and later the Ohio legislature decreed that all the railroads of the state should be laid with the 4 feet 10-inch gauge. On the other hand, many eastern and New England roads had been laid with the standard English gauge of 4 feet 8½ inches. At the same time certain important roads—the Erie and the Lackawanna, for example—in order to increase the carrying capacity of cars had increased the gauge to 6 feet.

In addition to the establishment of a uniform gauge throughout the country there had gradually developed a great number of technical improvements in the rolling stock,[ff] the road-bed [gg] and the signaling systems.[hh] Radical improvements

---

[ee] The southern roads clung tenaciously to their five-foot gauge. Most of them changed during the months of May and June, 1886.

[ff] In 1855, Felton and Crocker built at Taunton, Massachusetts, the first successful coal-burning locomotive. About the same time locomotives adapted for coal were built by the Baldwin works for the Pennsylvania Railroad, but this type of coal-burning locomotive was difficult to fire and but little used. It was not until after the Civil War that they came extensively into use. Heavy locomotives of the "consolidation" and "mogul" types were introduced about 1868 and "Krupp's patent steel tires" for locomotives came into general use a few years later.

Conspicuous improvements in the size, convenience, and comfort of passenger coaches developed in the decade succeeding the Civil War. Through sleeping-car service was inaugurated in 1863 and became widespread by 1869. In 1863 the Central Transportation Company ran sleeping-cars on the Pennsylvania and Central of New Jersey railroads. In September, 1863, it published the following announcement: "This company (the Central Transportation Company) . . . having, by purchase, recently become the sole owner of Woodruff's, Knight's, Myers', and other patents for seats and couches in sleeping-cars, would respectfully give notice to all railroad companies of the United States that may desire sleeping-cars on their roads that this company is now prepared to negotiate for placing, wholly at its own expense, on such roads as may require them, their sleeping-cars, and operate them upon terms at once liberal and satisfactory to railroad companies."[27]

[gg] For example, the gradual substitution of steel for iron rails. Steel rails appear to have been first laid in the United States in 1863 on the Pennsylvania Railroad.[28] President Thomson had observed their use in England in 1862 and imported 150 tons. (First used in England, London and Northwestern, May 2, 1862.) The following year they were tried experimentally on five other eastern roads. In 1867 they cost about $170 a ton (currency). Although they were acknowledged from the very first to be vastly superior to iron rails, from an operating standpoint, their great cost prevented wide-spread use. Thus Thomson, the early genius of the Pennsylvania Railroad, stated in 1867: "The cost of steel rails is at present about twice that of the best iron rails, while their durability is fully eight times greater. . . . The general introduction of steel rails is now wholly a commercial question, in which the cost of the increased capital required for their purchase becomes the chief impediment to their general adoption."[29] Perhaps steel rails were first produced in this country in 1865 by W. F.

---

[26] The Delaware, Lackawanna and Western Railroad for example.

[27] Quoted, Ringwalt, J. L., Development of Transportation Systems in the United States, 208 (1888).

[28] 17 Penn. R. R. Rep. 13 (1864).

[29] 20 Penn. R. R. Rep. 26 (1867).

along these lines were most conspicuous in the decade following the Civil War. The result, in every case, was to improve the quickness, certainty, ease, and cheapness of movement of trains. And in response to the greater rapidity and safety of transportation the public came to demand an improved service. One of the chief requisites of this improved service was fast through trains, both passenger and freight. This demanded extensive organization which easily tended to promote the development of the railroad system.

Coincident with the growth of improved methods of operation was the growth of competition. As small railroads were joined longitudinally so as to form through routes between large cities, competition over these routes began to develop. Soon after a through route from the Great Lakes to New York had been established by way of the New York Central to Albany and the Hudson River road to the Harlem, the Erie and its connections also began to offer a corresponding service.[32] No sooner had one series of roads established a connection between two important points than some other routes began to compete with it for the meager traffic available. Competition loomed large as a factor in railroad operation and railroad management. Inevitably, whatever the field of industry, consolidation is sought as a remedy for competition. And this, unquestionably, was one of the underlying causes

---

Durfee in Chicago. By 1877 the cost had fallen to less than $50 a ton. In 1881 over half of the railroads of the country, including all the principal roads of northeastern and middle western states, were laying steel rails on at least parts of their lines.[30]

Up to the end of the Civil War practically all railway bridges were of wood. Beginning about 1865 iron bridges were used.

[hh] The first use of signaling by telegraph occurred, according to Ringwalt, quoting the *New York Times*, in 1850, when Charles Minot, superintendent of the New York and Erie, thought of telegraphing ahead from one station to another to ascertain the movements of a delayed train.[31]

---

[30] For further details on this interesting topic, see Welch, A., "A Memoir on Rails," 3Trans. A. S. C. E. (1875); Raidabaugh, G. P., The Railway Rail (1915); Elfreth, J., "American Rail and Track," 22 Trans. A. S. C. E.

[31] Ringwalt, J. L., *Ibid.* 164. Special signal stations came into general use on main lines about 1868.

[32] For an illuminating account of the popular attitude toward this particular combination, see the article entitled "Sketch of the Rise and Progress of the Internal Improvements and of the Internal Commerce of the United States"; with a review of the charges of monopoly made against railroad corporations by Poor, Henry V., Poor's Manual of Railroad, xxiv, et seq. (1881).

that led to the development of railway systems in the period succeeding the panic of 1873.

But more important by far than any advances in the technical or administrative operation of the railroads and the rivalry engendered by competition, was the growing strength among prominent business executives of the impulse to expand. The crude beginnings of railway systems were to be found before 1873. But they were the result of the force of pressure from without rather than from within.

The underlying motives and surrounding circumstances that led to the development of the Pennsylvania Railroad system, especially the trunk lines west of Pittsburgh, are thoroughly typical of the consolidation of roads into systems characteristic of the period after the middle seventies and are also significant in themselves.

Beginning as early as 1850 the management of the Pennsylvania Railroad began to concern itself with western connections. As stated by President Thomson some years later, it had been the purpose of the Pennsylvania to develop three independent western connections, one leading to Chicago and the others to points in Ohio—Columbus, and Cincinnati.[33] A detailed study of these developments illustrates early railroad consolidation.

In 1848 a project was launched to connect Pittsburgh with Chicago. Accordingly the Ohio and Pennsylvania Railroad was incorporated in Ohio and Pennsylvania, to build a road from Pittsburgh to Crestline, Ohio. Two years later the Ohio and Indiana Railroad was incorporated to build a line from Crestline to Fort Wayne, Indiana; and in 1852 the Fort Wayne and Chicago was incorporated to extend the line to Chicago. Meanwhile the Ohio and Pennsylvania experienced difficulty in securing the requisite capital; and on the assumption that the completed road would favor the Pennsylvania Railroad in the interchange of traffic, the latter was empowered by the legislature in 1852 to subscribe to the capital of the Ohio and Pennsylvania. Portions only of the through line were completed by 1856, and in order to unify the building and operation of the roads a consolidation was agreed upon. It was a typical end-to-end consolidation of the early period. As a result the Pittsburgh, Fort Wayne and Chicago Railroad was organized, in which the Pennsylvania Railroad, by the exchange of its Ohio and Pennsylvania stock at $120 a share, became a large stockholder. Three years later the road failed. In 1862 it was reorganized, as the Pittsburgh, Fort Wayne and Chicago Railway,[34] in which the Pennsylvania retained an interest, justified by the "written pledges" of the Fort Wayne officials for an interchange of traffic.[35] In the following years the road became successful—the stock rising from $35 a share at the time of reorganization, to $152¾, in 1864. At the same time the officers, elected by the majority of the stockholders, began to divert traffic away from the Pennsylvania Railroad, contrary to the original understanding; they even had an extension east of Pittsburgh surveyed in order to release the Fort Wayne road from dependence on the Pennsylvania.[36] Also, after the Fort Wayne road had given evidence of its independent earning power and strategic importance, the board of directors of the Erie Railway sought to obtain control of its stock through the purchase of stockholders' proxies in the open market. The management of the Pennsylvania Railroad was incensed, but helpless. The Pennsylvania had even sold a large part of its stock in the Fort Wayne road, lured by the high market price,[37] notwithstanding the fact that the Fort Wayne road, as the Chicago extension, was necessary to it. In this predicament, in order to insure control, the Pennsylvania leased the road in 1869 on very liberal terms, and subsequently purchased a majority of its stock.

---

[33] 20 Penn. R. R. Rep. 11 (1867).

The histories of the Ohio extensions of the Pennsylvania Railroad's system are analogous. In 1848 a company was incorporated to build a line from Steubensville, on the Ohio River about thirty miles southwest of Pittsburgh, through Columbus to the Indiana state line. In the following year another company was incorporated to build the line from Pittsburgh to Steubensville. Part of the money for both enterprises was supplied by the Pennsylvania Railroad or its officers and the rest was promised by local merchants and the cities and towns traversed—the city of Pittsburgh and the county of Allegheny being large contributors to the Pittsburgh and Steubensville line. Both roads came into financial difficulties before their lines were completed. The Pennsylvania Railroad organized and subscribed to a majority of the stock of the Western Transportation Company for the purpose of completing the Pittsburgh and Steubensville[38] but difficulty was encountered in getting the right to cross the seven-mile stretch of West Virginia between the Pennsylvania state line and the Ohio River. Finally in 1868 the lines were completed, reorganized, and consolidated into the Pittsburgh, Cincinnati and St. Louis Railway, of which the Pennsylvania Railroad assumed the operating control through ownership of a majority of its stocks and bonds.[39] In the same year, 1868, an end-to-end consolidation was effected of a group of roads reaching from Columbus to Chicago and Indianapolis, all of which had experienced difficulties, under the name of the Columbus, Chicago and Indiana Central Railway. This was in the following year leased by the Pittsburgh, Cincinnati and St. Louis Railway, the contract being guaranteed by the Pennsylvania Railroad.[40] Soon after the same road leased the Little Miami Railroad, which gave the Pennsylvania lines direct access to Cincinnati and the railway traffic converging there from the Southwest.

---

[34] An early reorganization, see Book V, Chapter V, note (a).
[35] 23 Penn. R. R. Rep. 15 (1870).
[36] *Ibid.* 16.
[37] 20 Penn. R. R. Rep. 13 (1867).

The Pennsylvania Railroad having thus acquired a considerable investment and leasehold interest in these western connections, secured from the Commonwealth of Pennsylvania a charter for the Pennsylvania Company, one of the few holding company charters ever granted by the state.[41] The railroad then transferred to the Pennsylvania Company all these interests taking in return $8,000,000 of its $12,000,000 of stock.

---

[38] 20 Penn. R. R. Rep. 12 (1867).
[39] 22 Penn. R. R. Rep. 13 (1869).
[40] *Ibid.* 16.

After the depression following the panic of 1873 the whole motive changed. A new force, psychological rather than technical or economic in character, had injected its virus into the railroad world. Just as, some fifteen or twenty years later, the development of internal commerce made it appear possible to combine the operation of geographically separated factories under a single management, so the creative imagination of the railroad operators grasped at the possibility of combining through routes and branch lines into closely knit railway systems. The natural instinct of the business executive is to play for bigger things. This is his mode of exercising the primal Anglo-Saxon craving for conquest. This simple statement is all that is necessary to explain why, during the ten or fifteen years of business expansion between the panics of 1873 and 1893, a large number of the great railway systems of the country were created out of disjointed parts.

The methods employed in building up a railroad system varied in individual cases. They have been discussed already so far as they consist of legal devices and financial expedients. But a general plan of physical development has been sufficiently common among important railway systems to be considered typical. In brief, it has consisted of the extension, longitudinally and laterally, of a single relatively short trunk line. This extension was usually effected both by consolidation with previously existent lines and by the construction of new lines and new connecting links. A single line, oftentimes only a few miles in length and of relative insignificance, became dominated by men who were moved by the impulse for expansion. The line was then extended longitudinally and laterally. It seemed to move forward, like a primitive amoeba, by the extension of lateral processes in all directions. It acquired a significance in the railway world quite disproportionate to its size. It became, in effect, the nucleus of a railway system.

---

[41] 24 Penn. R. R. Rep. 19 (1871). See also Book IV, Chapter V, note (b).

This history is so characteristic of the origin and expansion of our American railway systems that an illustrative case can be chosen, quite at random, from almost any railway system, North, South, East, or West.[42] The development of the Atchison, Topeka and Santa Fé rail system is an illustration of these principles although no more typical than is the development of other large railway systems. Finished as a completed road of 471 miles in 1873, it grew rapidly until in 1892—less than twenty years—it became a railway system of over 9,000 miles in length.[ii] And the growth of railway systems, similar to the growth of the Atchison, but not quite so extreme, was taking place all over the United States. In 1873 there were no railroads in the country more than 1,200 miles in length, including the branch lines, and only three in excess of 900 miles. In 1893 there were 35 systems possessing a mileage in excess of 1,000 miles and 5 separate systems that exceeded 5,000 miles.[jj]

Third Period—Systems Combined.—But the development of railway systems was not enough. In the late eighties, about the time the formation of industrial trusts began to attract seriously the attention of business men and political and social observers, railway operators began to enlarge their spheres of

---

[ii] The development of the Atchison, Topeka and Santa Fé system between the panics of 1873 and 1893 is perhaps an extreme illustration of the typical development of railway systems during the period, as the Atchison system after 1888 was a loose union of several systems. In its development from 1888 to 1892 the history of the Atchison was more typical of the period of railroad consolidation following the panic of 1893.[43]

[jj] In this computation the loose union of the Atchison and St. Louis and San Francisco was not recognized. Also the Richmond and Danville, the East Tennessee, and the Central of Georgia were considered separate systems.

---

[42] The nucleus of the Atlantic Coast Line was the Petersburg Railroad, 21 miles in length. For a careful study of the development of the Atlantic Coast Line system, see Dozier, H. D., A History of the Atlantic Coast Line Railroad (1920).

[43] See Daggett, S., Railroad Reorganization, Chap. VI (1908).

influence from railway systems to systems of systems. Thus began the third and last period of railway consolidation.

Again the line between the two periods is arbitrary, and again the parallelism between the development in the East and the West is not exact. Nevertheless there is discernible the effort to extend the scope of the railway operating system to a loose combination of systems, distinct from each other in operation but unified by intercorporate connections and financial control. This is the combination movement in the railway industry, parallel to the trust movement among manufacturing corporations. The underlying causes which brought it about were much the same as those which led in the earlier period to the formation of railway systems, only the emphasis was not on formal combination, but on the efficacy of mere consolidation of management, mere large-scale operation, to bring about increased revenues. It is what Ripley calls "the higher strategy in railroad consolidation." [kk]

In the earlier periods, combination was usually dominated by traffic expediency. It was the hope of holding and increasing traffic that led to the end-to-end unions of the early period and to the welding of disconnected lines into systems in the second period. But in this third period of consolidation the ruling motive was not so much the increasing of traffic, for that could be obtained by intensive development of the already existent systems, but the increasing of administrative and financial control over whole sections of territory. Instead of consistency and internal coherence a myopic, headstrong, and unreflective competition for power dominated railroad strategy.

[kk] The passage from which this clause is drawn summarizes the conditions surrounding the railway consolidations of the period from a slightly different angle. "The working out of the higher strategy in railroad consolidation was the most significant feature of American transportation history in the decade to 1910. . . . Nor was the growth of large units confined to railroading alone. In fact the rapid rise of great banking units undoubtedly had much to do with the activity in this direction in the railroad field. All the various events of the period naturally dovetail together—rising freight and passenger rates; growing interest in governmental control; hostility." [44]

---

[44] Ripley, W. Z., Railroads, Finance and Organization, 459 (1915).

As a result, railroad systems were jointed together, often by mere accident,[45] provided the power of the railroad operators was increased and the scope of their activities extended.

This is no place for an extended discussion of the numerous combinations of railroad systems that were consummated in the ten years from 1896 down to 1907. Such "higher strategy of railroad consolidation" has been often and excellently treated elsewhere in great detail.[46] The process continued, uninterruptedly, until the Northern Securities decision of the Supreme Court forced a reversion, or perhaps slowing down of the consolidation mania. Then, following the panic of 1907 and the railroad legislation of 1910, the railroad operators began to question the expediency of burdening the already extended railroad systems by still further extensions. Railroad consolidations ceased altogether. And in the reorganizations occurring between 1913 and 1918 there was a reversion of the process and large parts of the bankrupt railroads were lopped off. The problems of efficient railroad management were serious enough with a small system; they became well-nigh insurmountable with a great disjointed and inarticulate system. Railroad consolidation was discredited by actual experience quite as much as by the Supreme Court.

Following the inefficient management of the railroads by McAdoo and his political lieutenants there grew up the feeling among the legislators, the railroad officials, the shippers and the public generally that possibly railroad consolidation should be encouraged so long as some measure of competition was retained. Accordingly, in the act which restored the carriers to their stock owners, it was provided that the Interstate Commerce Commission could approve certain railway consolidations which, seemingly, ran counter to the Supreme Court decisions under the Sherman Act of 1890. Although this enabling statute has been in existence several years, and elaborate reports, proposals and counter-proposals have been discussed, no further consolidations have occurred which could be attributed specifically to the change of sentiment.

---

[45] Like the acquisition of the control over the Louisville and Nashville Railroad by the Atlantic Coast Line Railroad. See page 730, note 20.

[46] Probably the best statistical account of this "higher strategy of railroad consolidation" is an exhaustive study prepared by Adams, H. C., for the Interstate Commerce Commission—Spc. Rep. No. 1, I. C. C. (1908)—covering the intercorporate relations of all the railroads of the United States. This study presents an extended array of financial statistics showing the extent and character of control exercised by one railroad over another in 1906.

An extended account of the later railroad consolidations is to be found in Ripley, W. Z., Railroads, Finance and Organization, Chaps. XIII to XVIII (1915). See also Cleveland and Powell, Railroad Finance, Chaps. XV and XVI (1912).

For tracing, in detail, the development and co-ordination of a great railroad system, there is no better account than Dozier's history of the Atlantic Coast Line system. Dozier, H. D., A History of the Atlantic Coast Line Railroad (1920). This has the advantage over most histories of individual railway properties of being written by a trained economist.

There are several uncritical accounts. One written by Spearman, F. H., The Strategy of Great Railroads (1903), gives an illuminating account of the "higher strategy of railroad consolidation" as it was actually taking place.

The only general consolidation during what we might call the contemporary post-war period was that centering about the "Nickel Plate merger." But this consolidation was prompted by the apparent marked ability of two men in the rehabilitation and administration of a railroad property, rather than any change in public sentiment or the settling down of railway consolidations into forms predetermined by legislative enactment or the whims of the Interstate Commerce Commission.

gentlemens agreemen
(a) price
(b) territory
Pools
a - pay in and take out
b -
c.

trusts

CHAPTER V

THE PUBLIC UTILITY HOLDING COMPANY

A Means of Control over Many Small Companies.—One of the most remarkable illustrations of corporate consolidation with some degree of individualization of parts is represented by the public utility holding company. This financial device represents a means which gives concentrated financial and operating control over small independent public utilities, widely separated geographically. Def.

In its simplest form, the public utility holding company consists of a corporation organized under the laws of some state which permits its corporations to hold the securities of other corporations in its treasury. It acquires at least a majority of the stock of local gas, electric, and traction companies. Against these treasury securities it issues its own stocks and bonds. In brief, the holding company acquires a control of the equities of local utilities, and through the ownership of these equities exerts a direct administrative control over the operation of the local utilities themselves. It assumes that a single central organization can exert a more efficient and economical management, although it may be miles away, than is possible by the local owners. It assumes that the public utility business is susceptible of a high degree of specialization, and that a few trained specialists can operate many widely separated plants—it is a kind of industrial combination applied to the field of local public utility companies.

Early History.—The early history of the public utility holding company, although it does not extend back further than the eighties, is very difficult to trace. The first corporation of the kind at all analogous to the modern holding company was the predecessor of the present organization known as the United

Gas
provement

Gas Improvement Company. The old United Gas Improvement Company was incorporated in 1882 as a Pennsylvania corporation, for the purpose of introducing improvements in the gas industry. The company immediately acquired the exclusive license from T. S. C. Lowe for the exploitation of his patented process for the manufacture of water gas.[a] The older method of manufacture of illuminating gas from the destructive distillation of coal was so firmly entrenched that the United Gas Improvement Company found great difficulty in introducing the manufacture of water gas. Accordingly the company at first leased gas works in various parts of the United States and subsequently acquired their stocks. This policy of acquiring control of disconnected local gas works began about 1884. It was, perhaps,[1] the first concerted attempt to bring under one management numerous independent, geographically separated public utilities.

---

[a] Lowe's process had been in successful operation in several places, notably Baltimore, Maryland, and the United Gas Improvement Company assumed his licenses for about twenty-three states not already pre-empted. Lowe himself became a stockholder to the extent of about 10 per cent of the original outstanding capital stock of $1,000,000.

The Lowe method of water gas manufacture consisted in passing hot steam over hot hard coal or coke. Chemically it is a very simple process, in that the hot coal combines with the oxygen of the steam, forming carbon monoxide, which passes out mixed with the free hydrogen evolved from the breaking down of the water molecule. Water gas is, therefore, primarily, a mixture of carbon monoxide and hydrogen. This mixture, however, burns with a colorless flame and is low in heat value, so that water gas to be used for illuminating purposes must be enriched by the vapor of some hydrocarbon rich in carbon. This enrichment is usually accomplished by adding "gas oil," an unrefined petroleum remaining after the distillation of the lighter oils. The manufacture of water gas is carried on in a series of upright cylinders, the whole known as a "gas set." When petroleum is of low cost—the "gas oil" is the largest single expense in water gas manufacture—water gas is cheaper to produce than the gas made from the destructive distillation of coal. Also in small gas works, small water gas sets are cheaper to operate than gas benches of the same relative capacity. Some large gas works maintain the two independent systems. They produce a prepondering proportion of water gas when oil is cheap and gas coal expensive, and gas from the distillation of coal when opposite conditions prevail. Under normal conditions the coke produced from the destructive distillation of coal provides the coke for the production of water gas. There is, therefore, a kind of balance between the two processes. For the development and exploitation of water gas manufacture, the United Gas Improvement Company is largely responsible.

---

[1] So far as the author has been able to ascertain.

At first the stocks of gas companies acquired by the old United Gas Improvement Company were placed in the hands of a trustee, as the general corporation laws of Pennsylvania did not permit one corporation to hold the securities of another corporation. This procedure, however, was indirect and cumbersome. Accordingly the men responsible for the Gas Improvement Company acquired the charter of the Union Company, an old charter granted by a special act of the Commonwealth of Pennsylvania in 1870.[2] This charter was one of the most liberal ever granted by special legislative sanction,[b] and

---

[b] The early charters granted by the Commonwealth of Pennsylvania were matters of legislative favor. They were as liberal as the political influence of their sponsors could make them. In 1868 a charter was granted to the Continental Improvement Company[3] which, after reciting all the ordinary powers and contractual relations a corporate body could possibly have need of, provided that the corporation "shall have full power and authority to hold and own securities of any form, either as collateral or otherwise, and dispose of the same at pleasure." In 1870 the legislature granted a similar "omnibus" charter to the Pennsylvania Company[4] to enable it to own the securities of and operate the lines of the Pennsylvania Railroad west of Pittsburgh.[5] The legislature of Pennsylvania was then under the influence of officials of the Pennsylvania Railroad; and Thomas A. Scott, an important officer of the road obtained, in December, 1870, a charter for the Union Contract Company which specially provided that this company should "have full power and authority to hold and own securities of any form, either as collateral or otherwise" (Sec. 2). And the charter also provided that the company should have all "the privileges conferred on the Continental Improvement Company" (Sec. 8). And furthermore a supplementary act was passed conferring on the company "all the rights, powers, and privileges" conferred on the Pennsylvania Company a few months before.

The power to charter "omnibus" corporations of this character was taken away from the Pennsylvania Legislature in 1873, but before that time some five or six had been created. Besides the three just mentioned, there were others, as follows:

The Excelsior Enterprise Company, later the "National Company," chartered in 1871. Its charter was acquired in 1896 by the reorganization managers of the Philadelphia and Reading Railroad to bring into one corporate ownership the railway and coal properties.[6] Daggett, S., Railroad Reorganization, 141 (1908).

The Erie and Western Transportation Company. This was organized by men associated with the Pennsylvania Railroad, to own and operate steamships on the Great Lakes.

The Philadelphia Company. This was a large holding company operating the public utilities in and around Pittsburgh. It is now a subholding company within the United Railways and Investment Company, which has, in permitted, among other things, the corporation to purchase and own the securities of other corporations. The name of the Union Company was changed in 1888 to the United Gas Improvement Company. The new United Gas Improvement Company then acquired the assets of the old United Gas Improvement Company, by exchange of stock and also the shares of gas companies held in the interest of the latter by trustees.[c]

---

[2] P. L. 1870, page 1247.
[3] P. L. 1868, page 822.
[4] P. L. 1870, page 1025.
[5] Book IV, Chapter IV, page 745.
[6] 64 Chron. 84 (1897).

The United Gas Improvement Company has been successful in its general plans. It has acquired the control and ownership of gas, and later electric light plants in all parts of the United States. These are operated by thirty-four subsidiaries, having a combined capitalization of $200,000,000, in addition to the $60,000,000 of common share capital of the United Gas Improvement Company itself.[d] Its income has steadily in-

---

turn, been acquired by a still larger holding company, the Standard Gas and Electric Company. See note v and page 780 of this chapter and the accompanying text.

The National Transit Company. This operated a series of pipe lines in the interest of the old Standard Oil Trust.

The Union Contract Company, referred to in the earlier part of this note, was used as a construction company for numerous railroads in the South, and for several others in Colorado, including the Denver and Rio Grande Railroad. It was freed from possible claims by a tax sale in 1885 and the name changed to the "Union Company." In 1888 the charter was acquired by men associated with the old United Gas Improvement Company.

[c] The corporate existence of the old United Gas Improvement Company was maintained down to 1918, as this company held the leases to the Waterbury Gas Light Company and the Vicksburg Gas Light Company. It was not considered wise to transfer these to the new company.

[d] Summary for Securities of The United Gas Improvement Company, 1918

	Bonds	Preferred Stock	Common Stock
Securities of subsidiaries:			
Intercorporately owned:			
Owned directly by United Gas Improvement	$11,348,000	$15,003,000	$52,525,000
Owned by subholding companies	....	....	....
Funds in sinking fund and treasury	11,578,000	....	209,000
Total	22,927,000	15,003,000	52,734,000
Publicly owned	74,514,000	6,489,000	25,142,000
Total securities of subsidiaries	97,441,000	21,492,000	77,876,000
United Gas Improvement securities (holding company's own securities outstanding):			
Publicly owned	....	....	61,029,000
Securities of United Gas Improvement and subsidiaries	97,441,000	21,492,000	138,906,000
Grand Total of all securities....... $257,839,000			
Total securities intercorporately owned	22,927,000	15,003,000	52,734,000
Total securities publicly owned	74,514,000	6,489,000	86,172,000
Percentage of total securities owned by the public represented by different classes	44.5%	3.8%	51.7%

creased and since 1889 the company has paid regular dividends of 8 per cent. During, and subsequent to the Great War, the company suffered from over-expansion, and in order to obtain money issued preferred shares.

The success of the United Gas Improvement Company as a holding company for the stocks of local utilities attracted imitators. The first of these, in 1890, was the North American Company, a reorganization of the old Oregon and Transcontinental Company.[7] The plan of the directors of this company was to develop, intensively, the electric business in a single locality and secure profits for the holding company through the unified control and economical operation of all the electric utilities of a single, relatively confined, but thickly populated area. This plan was first applied to the electric utilities of Milwaukee; later the North American Company acquired control of the street railways of St. Louis and a minority interest in the Detroit Edison Company, one of the most successful central station enterprises in the country. Later the American Light and Traction Company was organized for the purpose of acquiring and operating local utilities, and from 1900 down to the period of the Great War, holding companies of great variety were organized by banking and engineering firms.[e] In many cases the covert purpose seems to have been to secure a promotion profit rather than a profit through economies and efficiencies in the operation of the local utilities. In consequence these later companies have not prospered markedly.

Four Advantages.—Four advantages have been alleged to justify the holding company form of organization as applied to public utilities. It is presumed that the central organization gains a high degree of technical skill at a relatively low cost for the individual plants. It is presumed that the central organiza-

---

[e] One of the first in the electrical field was the United Electric Securities Company, organized in 1890 by the old Thomson-Houston Electric Company. This was probably the nucleus of the extended operating companies built up around the General Electric Company.

---

[7] See 50 Chron. 875; 54 Chron. 1007.

tion is able to purchase material, equipment, and supplies more intelligently and at better terms than the local organization. It is presumed that the central organization can deal more intelligently and far-sightedly with the public authorities and the customers than can the local organization. It is presumed that the central organization can secure the capital required for extensions more easily and at cheaper rates of interest than the local organization. Upon the truth of these presumptions—particularly the first and the last—rests the economic and social justification of the public utility holding company, and so important has this form of organization become that each of these grounds of economic efficiency should be carefully weighed.[f]

Superior Technical Efficiency.—The superior technical efficiency of a centralized management as compared with a local management is most often alleged as the conspicuous advantage of the public utility holding company. This allegation deserves considerable attention. It has been pointed out already in connection with the promotion of public utility corporations [8] that most utilities were promoted and operated during their early existence by local men who knew next to nothing about the technique of the business. The minimum of technical knowledge was obtained by hiring a manager or superintendent who had "picked up" a modicum of practical experience working in another plant. Such a manager had learned the business much as a grocer or hardware dealer had learned his. This scrappy technical knowledge was sufficient for all practical purposes. The manager could understand the actual operation of the gas works, the electric light plant, the water works, or the little street railway. He could make small repairs and attend to the ordinary replacements and extensions. But he was utterly unfamiliar with the real technique of the industry. Above all, he could not tell when machinery and equipment became obsolete, as compared with newer or essentially different models. In consequence, the local utility settled down into a kind of humdrum existence, quite outside the current of industrial progress.

---

[f] The advantages of the public utility holding company over the independently owned and operated local utility have been often reviewed. Nowhere have these advantages been more clearly expressed than in a certain brief filed May 11, 1914, with the Interstate Commerce Committee of the United States Senate with reference to Senate Bill No. 4160. "The holding company unites under one control and management the public utilities of several communities. The increased volume of business so obtained enables the holding company to make the expenditure necessary to secure a thoroughly competent executive, engineering, and operating staff, whose services are available to all of its subsidiaries. Thus, along with the resulting increase in efficiency, the expenses of each subsidiary are materially reduced. Expenses are further reduced by the standardization of materials and supplies, and by the purchasing of such supplies by skilled purchasing agents in large quantities in a far wider market and upon much better terms of credit than could possibly be secured by the separate local companies acting independently. The centralized expert management effects further economies in the cost of production by the standardization of operating and accounting methods. Plants are combined and construction work is standardized, so that equipment outgrown by one community can be utilized by transfer to another smaller community, instead of being discarded as useless; in this way the enterprise is run with a minimum amount of capital, and depreciation charges are materially lessened. The distribution of the business over an enlarged territory 'averages the risk' and secures the holding company against irreparable damage from purely local causes. All of these improved conditions operate to increase the attractiveness of the enterprise to the investor, and, consequently, to bring about the very great economy of decreased cost of capital and the resultant fixed carrying charges."

This humdrum kind of existence the centralized management of the holding company sought to improve. By reason of its ownership of a number of utilities, it was able to employ a general manager of far greater technical knowledge and business acumen than the meager resources of the single local utility could command. And the fraction of the time that the man of superior skill was able to devote to the single company afforded the necessary stimulus and guidance that brought it out of its routine of inefficiency. The pro rata cost of the general manager's service that should be charged against the earnings of the single company was small, compared with the operating economy that resulted from following his instructions. On the other hand, the high cost of the expert manager's services, valuable as they were, would have been prohibitive had the single utility been forced to bear them alone. The local utility, that is to say, could very wisely bear its proportionate share of the salary of an able and progressive manager who planned the technical policy it should follow, but it could not bear the entire salary.[g] This co-operative and centralized planning is what the holding company furnishes.[h]

---

[8] Book II, Chapter VI.

This advantage of having marked technical skill to direct the general policies of a small company, even though the actual operation has to be left with an immature or only partly trained local superintendent, has unquestionably worked out well in practice. The administrative operation of any public utility consists of two fields of activity. The operator must determine the technical policies of the company, and he must attend to the day-to-day routine business of the company. The former requires a broad knowledge of electrical or gas engineering, the product of highly specialized technical training, keen business insight, and a wide experience.

Yet decisions of policy are made infrequently. The ques-

---

[g] The problem whereby the holding company may secure compensation for all the services rendered to its subsidiaries often presents difficulties. If all the securities of the subsidiary are owned by the holding company, then the method and the amount of compensation the parent may demand of its subsidiary is entirely a question of bookkeeping. But if there is a considerable minority ownership in the securities of the subsidiary, then it becomes a matter of importance whether the earnings of the subsidiary are brought into the holding company's treasury partly through an arbitrary service charge in which the minority security holders have no share, or entirely through stock dividends in which the minority interests have a proportionate participation. In an important case a holding company charged a subsidiary $2,000 a year for its services. The Commission ruled that this was all the rate payers were called upon to bear, even though it could be shown that the local utility could not obtain services of equal value by other means except at a much greater cost.[9] The American Telephone and Telegraph Company levies on each of its subsidiaries a charge of 4½ per cent of the gross receipts for the services of its central organization. This includes not only the customary legal, technical, financial and administrative assistance rendered by the holding company, but also a rental for the subscribers' telephone instruments, all of which are owned by the holding company.[10]

[h] The services rendered by the regular and consulting engineers for the subsidiaries of the American Gas and Electric Company are a conspicuous case in point. Not only have these subsidiaries the advantage of the technical talent directly employed by the holding company, but also, because of the close connection between the American Gas and Electric Company and the General Electric Company, these small operating companies have at their command—provided their technical and operating problems required it—as able electrical engineers as there are in the country.

---

[9] 68 Electrical World, 1182 (1916).

[10] 1914 Am. Tel. & Tel. Rep. 3.

tion of whether to substitute a steam turbine for a steam engine of older type, and if so what should be the size in view of the probable future load, is a question that comes up for consideration only once in every few years. A new generator must be installed, because of an excessive, but short-time peak load. Great care and a wide knowledge of many things are required to tell whether it is best to install two smaller units or one large unit. Such questions do not present themselves often, but if a mistake is made when it comes time to decide them, considerable losses result. On the other hand, the ordinary detailed problems of day-to-day operation require constant attention, but they do not involve decisions of much importance. If the local manager buys a car of poor coal, it may make trouble temporarily, but the loss to the company is slight; if he puts in a transformer at a certain point rather than continue the secondary circuit a few hundred yards further, he may fail to exercise shrewd judgment, but the loss to the company is slight.

These two phases of actual operation require, then, abilities of an entirely different order. The actual day-to-day operation of the utility may be entrusted to a man of quite mediocre ability, provided he has a mind for detail and is careful in small matters. Men having a capacity of this kind are numerous, easily trained, and are contented with a small sphere of usefulness. Their salaries are small, ordinarily. They may make mistakes, but the sum total of the losses arising to the company because of the mistakes of such a man amount to considerably less than the difference between his salary and the salary of a thoroughly competent resident engineer. But this is all predicated on the presumption that the local operator does not have to make judgments concerning policy. In the relations subsisting, ordinarily, between the holding company management and the subsidiary operating companies, these judgments of policy are made by the highly trained technical engineers, so that in actual practice the two phases of the operator's duties are actually divided. The technical policies are determined by a corps of high-salaried, trained engineers under the employ of the holding company, who have general supervision over all the subsidiaries. The routine, day-to-day operating problems are settled by the low-salaried resident superintendent. In this way the local company secures both types of operating administration at least cost to itself.

Economy in Purchase of Equipment.—Another advantage alleged to pertain to the holding company is the economy in the purchase of equipment. This arises both from greater intelligence and from the economies resulting from large contracts with manufacturers. The central purchasing department of the holding company, upon which requisitions are made by the local managers, is able to use greater discrimination in selecting machinery and equipment than the manager of the local company when acting alone. In the matter of intelligence, the single purchasing department can devote considerable time to a study of the relative costs of different types of transformers, gas retorts, or cars, as the case may be, and purchase standardized equipment for all the subsidiaries. Economies, too, are often possible in the purchase of standard equipment, even where no discriminating judgment is required.[1] For it stands to reason that the manufacturers of even such staple commodities as cast iron pipe and copper wire will offer special discounts to the purchasing agents of groups of companies able to negotiate exclusive contracts carrying a large volume of purchases.

---

[1] A good illustration of this is shown in the purchase of incandescent electric lamps. The important producers are subsidiaries of the Westinghouse and General Electric companies. These companies have made an agreement with each other covering a uniform scale of discounts, based on the gross purchases under a yearly contract, as follows: $150 a year, 17 per cent discount on "standard packages"; $300 a year, 21 per cent; $600, 24 per cent; $1,200, 27 per cent; $2,500, 29 per cent; $5,000, 31 per cent; $10,000, 33 per cent; $20,000, 34 per cent; $30,000, 35 per cent; $50,000, 36 per cent; $100,000, 37 per cent; $150,000, 38 per cent; $225,000, 39 per cent; $300,000 and over a year, 40 per cent. Such lamp purchase contracts permit a single management controlling several companies to pool the purchases. The contract is signed by the purchasing department of the holding company, and attached to the contract is a rider giving a list of all the subsidiary companies whose total purchases are to be lumped together in figuring the composite discount.

Similar arrangements are possible on appliances. For example, the ordinary discount allowed a central station for a washing machine (manufactured by a subsidiary of the General Electric Company) is 30 per cent; but a holding company buying for its subsidiary can get a discount of 40 per cent.

3 **Advantage in Business Dealings with the Public.**—Still another advantage alleged to belong to the holding company form of organization is the advantage in business dealings with the public. This is the same as saying that the ordinary methods of business administration are better if under the supervision of men with special training or long experience. This may show itself in several ways, but in none is the advantage of wide experience more important than in the placing of contracts and in determining the wisdom of making extensions for new customers. Both of these matters illustrate the advantage of a large centralized organization, and deserve, therefore, more than passing notice.

Companies supplying water, gas, and electrical energy to private customers make individual contracts with the consumers. The traction company offers a kind of general service which is paid for as it is delivered, and requires, therefore, no special contracts. Water, gas, and electricity are furnished to contract customers according to published rate schedules, so that the "selling" problems of the company are confined to determining the proper rate schedules and to determining the amount of capital outlay the company can afford to make in order to "take in" a new customer or group of customers. The former is the problem of rates; the latter is the problem of extensions.

Attention has already been drawn to the fact that a water, gas, or electric company sells its services on the basis of a monopoly price.[11] It is not called upon, ordinarily, to meet competition of the same commodity, although it may compete with substitutes in the sense that gaslight is still somewhat of a competitor of electric light, and electric heating is becoming to some extent a competitor of gas heating. But the problem of rate-making is still a problem of monopoly price—the maximum total net return, rather than the profit on the individual sale. This being the case, the prediction of both the gross and net revenue likely to accrue to a gas or electric central station company from a given schedule of rates is a matter of guesswork at best, and unless the guessing is done by men of wide experience, it is apt to be harmful if not actually disastrous to the company. This is conspicuously true in determining a schedule of power rates, especially for central station electric companies. Electric energy must be sold as it is generated, but the generating machinery must be prepared to deliver current on the instantaneous demand of the customer. As a result, power customers who require a regular, constant supply of energy throughout the twenty-four hours are most desirable; those whose requirements fluctuate from nothing to the maximum demand of their entire machinery, are least desirable. The rate that the central station company can afford to make for the latter customer must be computed on an entirely different basis from the rate for the customer with a regular demand. Yet the two rates must be scientifically computed. They must be matters of public record, so that any other customer operating under essentially the same conditions could enjoy the same rates.[j]

---

[11] Book II, Chapter VI, page 319.

---

[j] The power rate is now regarded as a function of three variables—the maximum demand, the maximum quantity of energy consumed, and the total quantity of energy consumed. The first two are frequently, especially for small customers, grouped together as the "demand charge."

The subject may be well illustrated from a concrete case. A certain mill might have required for a period of twenty minutes 168 horse-power of electrical energy. The first element of the power bill will be 168 multiplied by the demand rate, say $1.50—making the demand charge $252. We will assume, too, that it consumed 27,860 kw.-hrs. of energy. Now the energy schedules provide for a varying rate, somewhat as follows (all power consumption above 1,000 kw.-hrs. metered on the primary side of the transformer at 2,200 v.):

Kw.-hrs.	Cents
0 to 1,000	5.00
1,000 to 2,000	3.00
2,000 to 5,000	2.75
5,000 to 10,000	2.50
10,000 to 20,000	2.25
20,000 to 50,000	2.00
All over 50,000	1.75

All this is stated to show the intricacy of determining a rate schedule that justly apportions the costs of public service, so that each customer bears a fair share of the burden, and yet one that yields the company sufficient revenue. It is, indeed, so intricate that a wide experience with the wants of different kinds of customers as well as a thorough knowledge of the production problems of the utility are required on the part of the rate-maker. Such an experience and such knowledge are certainly not at the command of the man who operates a small local public utility for a group of local owners. Such a man, when confronted with the necessity of drawing up a rate schedule will probably copy the one used by a neighboring company or else try to construct a new one without an adequate understanding of the subject. At all events the rate schedule of the local manager is bound to be less intelligent than a schedule worked out by a trained engineer who has made a study of scientifically constructed rate schedules. It is this advantage which the central organization of the holding company offers to its subsidiaries. And it is an important advantage. In extreme cases, an unfair power contract, undertaken through the stupidity of a local manager, has caused the failure of the utility.[k]

From this schedule it is apparent that the energy charge will be $669.70. This added to the demand charge gives a total power bill of $921.70.

Another variable still, the "load factor," or relative variation of demand, has been introduced by some rate engineers of late. As a whole, rate scheduling for power loads grows increasingly intricate as the complexity of the subject is more fully realized. The whole purpose is to charge to each customer the fair share of the cost of maintaining and operating the central station plant that can be properly allocated to him.

[k] A certain Massachusetts corporation engaged in the distribution of electric energy purchased its current of a large hydro-electric company. The contract had the usual demand charge and a sliding scale energy charge, the latter complicated by a "coal clause." The manager of the local distributing company, wishing to reduce the cost of his energy as much as possible, signed a contract with a large paper-mill on the basis of an energy charge approximately equivalent to the lowest bracket of the hydro-electric company's charge to him. But he neglected to protect himself by a proper demand charge. In actual experience it was found that the load of the paper-mill had, at times, an abnormally high "peak." This high peak so increased the "demand" of the entire distributing system that the sales of electricity to the paper-mill resulted in a very substantial loss. In fact the losses on the paper-mill contract entirely obliterated the profits on all

The other assistance that the holding company renders to its subsidiaries in the selling of service is in connection with new business. The "new business" solicitor is a necessary adjunct to every progressive public utility, because the form and character of new business ought to be intelligently guided, and this guidance is dependent on considerable experience. Many gas and electric light companies have extended their lines in a quite haphazard fashion. If a customer in an outlying section of the town was particularly urgent in his demands for service, a main or a line would be extended to him in the hope that new customers along the way would ultimately take services and thus render the extension a profitable investment. But often the accumulation of interest charges on the sparsely used extension acted as a permanent burden to the whole company. It has become universally recognized that an intelligent placing of the new business is even more important than the new business itself. For this reason new business campaigns are carefully planned by the new business engineers of the holding company, put under the charge of a man or woman[1] who follows definite prescribed plans. The primary lines and transformers or the mains are plotted, the points and areas of undersaturation are noted, and the new business solicitor concentrates his energy upon these points or areas. The trained solicitors are moved about from one district to another and from one subsidiary to another, according to the immediate needs. Ordinarily they carry on their work independent of the local management and their compensation usually consists, in part if not altogether, of commissions on the new services they secure.

In one instance that comes to mind, the new business solicitor is allowed $10 for each new service he secures, out of

---

the rest of the business. A receivership was threatened, and the company was taken over by a committee of creditors.

[1] In new business campaigns of gas companies, the object of which is to extend the use of gas for cooking, women are frequently better new business solicitors than men. They have more patience in arguing with a prejudiced or penurious housewife the advantage of the gas-range over other forms of cook-stoves.

which he must meet all his expenses. In this way the company is able to capitalize the cost of securing each new customer at a definite, predictable figure. Such a plan will work well when it is desired to increase the concentration of domestic consumers; it will not answer for power-consumers. Another system of compensation for solicitors was adopted by a holding company for gas-works. Each solicitor received a small weekly salary, a commission of $5 on each new service, and in addition a small bonus on the margin of increase of consumption of gas in the district in which the solicitor had been working.

The American Gas and Electric Company publishes a monthly magazine for distribution among the employees of its subsidiary operating companies. In this magazine is published the "records" and relative standing of all the new business men in the entire organization. To direct compensation it adds, therefore, the stimulus of rivalry.

4 **Advantage in Financing.**—But after all has been said, there is little doubt but that the most conspicuous help that the holding company renders to its subsidiary is in financial matters. This shows itself in two ways. The holding company advances money to the subsidiaries, taking in return the ordinary demand notes. It also acquires for permanent investment or for subsequent sale the stocks, bonds, or debenture notes of the subsidiary. In brief, it assumes to render both temporary and permanent financial aid to its subsidiary operating companies.

The outstanding problem of all public utilities since the beginning of the century has been the financial problem of obtaining the money necessary for improvements and extensions.[m] Since the wide-spread adoption of the Lowe system of gas manufacture and the universal substitution of alternating for direct current machinery for electric companies, the technical advances in the utilization of gas and electrical energy have outstripped the capital available with which to take advantage of these advances. Because of their public nature, the return allowed by commissions, the courts, and public opinion on the capital invested in utilities has never been as liberal as that available to the capital invested in a well-managed bank or manufacturing company.[12] They have bid for capital more by stressing the permanence and stability of the industry than by offering high interest rates. As a result, that portion of the savings fund of the community available for the extensions and improvements of public utilities has been inadequate to public demands. Severe competition ensued among the utilities themselves for what was available, a competition stimulated by the incessant clamor of the public for improved service.

---

[m] This is literally true except among the utilities of Massachusetts and some other New England states, where the steady accumulation of capital, the limiting tax laws, and the inertia of local managements, resulting in failure to keep their properties technically abreast of the times, have created a situation which enabled these utilities, down to the period of the Great War, to obtain easily and at a low rate all the new capital they required.

In the presence of this competition for capital, that utility has fared best which has had some direct financial support.[n] This support has been given by the holding company. By the ownership of the controlling shares—the equity, as it were—of a number of utilities, the individual capital demands of each are averaged. The capital available from the treasury of the parent company is passed over to the subsidiary to be used under such conditions as confer the greatest benefit.[o]

---

[n] Again excepting the Massachusetts utilities and some others of the New England states. In such cases the utilities have been able to sell common stock at such a premium that the net return to the investor has been close to 4 per cent.

[o] The extent to which holding companies make advances to subsidiaries can be guessed at only by indirect methods. The following, taken from balance sheets, indicates the relation between book values (usually much less than actual values) and apparent advances, in the case of two well-known holding companies. Recently many companies have adopted consolidated balance sheets eliminating inter-company borrowings. As a result the subsidiary advances cannot be ascertained.

	Book Value of Subsidiaries' Stocks and Bonds	Apparent Advances to Subsidiaries	Percentage Advances to Book Value
American Gas & Electric (1923)	27,991,000	16,566,000	59.18
American Power & Light (1924)	52,454,000	4,923,000	9.38

---

[12] See memoranda of prices at which securities could be sold before the Great War, as given in Book IV, Chapter VIII, note (a).

Weak subsidiaries are tided over critical periods—often by the use of the credit of the stronger subsidiaries—and the credit of the whole organization is made available to those companies which are so small or so deficient in earning capacity that they have no independent credit.

Direct Advance to Subsidiary by Holding Company.—The first aid extended to the subsidiary is in the form of direct advances on open accounts or on demand notes. These advances are used by the subsidiaries to meet the accounts of merchandise dealers and contractors, and the payments for wages incurred in building the extensions. In this way the subsidiary's own credit is not, except in rare cases, used for its current expenditures. These open accounts or demand notes are carried by the holding company as free treasury assets or else rediscounted with its indorsement.[13]

The amount of these notes and open accounts, which a holding company may carry representing temporary financial operations, sometimes reaches very large proportions. This was particularly true during the latter part of the Great War—say the calendar years of 1918 and 1919—when the bonds of established public utilities declined steadily and most of the new capital available was being absorbed by government loans. Under these circumstances, the permanent financing of extensions was well-nigh impossible. Extensions and improvements were reduced to a minimum, and this minimum had to be carried by means of temporary borrowings.

It is a fundamental principle of finance that fixed investments, such as constitute the improvements and extensions of public utilities, should not be paid for from the proceeds of the sale of short-time notes. On the contrary, property of this character which is not self-liquidating must be paid for by the sale of long-term bonds and stock. This elementary principle of finance has been acknowledged, from necessity as well as business sagacity, by the officers of most holding companies. And they have sought to fund the accumulation of short-term notes and accounts by one of several means.

---

[13] See Book IV, Chapter VI.

Marketing Securities for the Subsidiary.—The simplest means, and the one invariably adopted when the credit of the subsidiary is strong, or at least as strong as the credit of the holding company,[p] is to have the subsidiary issue its own bonds and preferred stocks which are then sold for its account by the financial department of the holding company. And the indirect help which the holding company renders, even though it does not indorse the securities, is very great. The mere fact that a small local company is owned and controlled by a well-known holding company will invariably aid in the marketing of its securities—in fact the bonds and preferred stocks of many such operating companies would be utterly unmarketable were it not for the fact that the equity common stocks are owned by well-known holding companies, which must protect the underlying securities in order to protect their own common stocks. Even though the subsidiary is not paying its way and the equity common stock is worthless, a prosperous holding company will continue to advance bond interest on open accounts for a considerable period of time, rather than allow the subsidiary to default on its charges and pass into the hands of receivers. The failure of a subsidiary, notwithstanding any excuses, invariably affects the credit of the holding company.

Also, in marketing the underlying securities of the subsidiaries, a large and successful holding company usually has close connections with bankers. And the bankers are made to feel that it is incumbent on them to take the less desirable bonds and preferred stocks of smaller subsidiaries along with the more desirable and more easily sold issues of the parent company and its wealthier subsidiaries.

---

[p] It must not be inferred that the credit of the holding company is invariably stronger than that of its subsidiaries. The North American Company holds a large minority interest in the Detroit Edison Company. The general credit of the latter is probably equal or superior to that of any other local utility in the country, barring a few Massachusetts companies which have no bonded debt. There is no question but that it is superior to that of the North American Company.

If the holding company believes it expedient to reinforce the credit of the subsidiary by its own credit, it may either indorse with its guarantees the subsidiary securities; or it may issue securities of its own, based on the subsidiary stocks, notes, and bonds acquired for its treasury. There are no fixed rules observed; a holding company may follow one method at one time and another method at another time.

The sale of underlying subsidiary securities, with the guarantee of the holding company, is, on the whole, a less common practice among public utilities than among railroad holding companies. The reason for this is probably that investors are inclined to give less weight to the credit of the former than the latter.[q] The policy has, however, been followed in a few sporadic instances in which a holding company tried to market a considerable issue of subsidiary securities under peculiar circumstances,[r] or sought to market some bonds of a subsidiary before the earning capacity of the subsidiary would warrant.[s] This policy of the holding company in withholding its indorsement of subsidiary securities is, on the whole, wise. The volume of such securities in the hands of the public is very large, as compared with the free assets in the holding company's treasury.[14] The indorsement, if

---

[q] A railroad holding company, such, for example, as the Southern Pacific Company of Kentucky, in spite of the fact that it is a mere "paper corporation" carries far more weight with the rank and file of investors than any public utility holding company.

[r] This is illustrated by the case of the Consolidated Cities Light, Power and Traction Company's First Lien Collateral Trust 5s, due 1962. These bonds were first offered in London in 1912. The Cities Service Company, the parent company, was unknown, so also was the subholding company, the Consolidated Cities, and so also were the small operating companies whose bonds and stocks constituted the collateral security. To give the English investor every possible security the bonds were guaranteed, principal and interest, by the Cities Service Company.

[s] The American Public Utilities Company's Twenty-year Secured Notes, due 1936, are secured, largely, by the stock of the Wisconsin-Minnesota Light and Power Company. This was an extensive power development which had not demonstrated its earning capacity when the notes were issued.

---

[14] See note (v) of this chapter.

extensively indulged in, would stand merely as a form and therefore lead to deceit and misrepresentation.

Issue by Holding Company of Its Own Securities.—The usual method by which the holding company will seek to finance its subsidiaries is by means of the issue of its own securities. These are likely to be either collateral trust bonds, if the holding company has not a strong independent credit, or debenture bonds and preferred stock, if it has.

If the holding company is forced to issue collateral trust bonds, serious difficulty arises in regard to the nature and extent of collateral that shall be deposited with the trustee as security. If the bonds are to be issued merely to furnish the subsidiary companies with money for extensions, then the holding company will wish to use, as the collateral for its own bonds, only the particular securities issued in connection with the extensions. But such securities would be probably only parts of issues. And if, subsequently, the holders of the collateral trust bonds were forced to foreclose their lien and take possession of the collateral they would find themselves unable to reach forward to the actual property as the pledged collateral constituted only a minority interest in the total securities of the subsidiary. Consequently most banking houses that undertake to offer the collateral trust bonds of a holding company insist that the pledged collateral shall constitute at least sufficient proportions of the outstanding securities as will enable the holders of the bonds to secure possession of the physical property of one or more of the subsidiaries, without having their liens destroyed by the actions of an antagonistic majority interest. And it is essential that this be so. For if the credit of the holding company is such as to demand the additional security of collateral, it is likewise necessary to protect this collateral from emasculation through the issue of other securities having an equal or superior lien on the actual property of the subsidiary operating company.

This protection to the owner of public utility holding company bonds can be accomplished in various ways. When the collateral deposited consists of the common shares of the subsidiary, it should be provided additional common shares, if issued by the subsidiary, shall be deposited under the collateral trust.

This was discussed in connection with collateral trust bonds as a whole.[15] It is specifically illustrated by a provision of the indenture securing the collateral trust bonds of a small holding company in western Pennsylvania, the Pittsburgh District Electric Company, now one of the subsidiaries of the Pennsylvania Ohio Electric Company. This corporation owns all the stocks, bonds, and outstanding notes of the Mercer County Light, Heat and Power Company, the operating company, all of which securities are pledged to secure its collateral trust bonds. The indenture provides that the operating company shall not issue any securities, not even ordinary notes, unless they are immediately acquired by the holding company and pass under the lien of its collateral trust bonds. A provision, such as this, which makes it impossible for the operating company to issue to the public even an ordinary note is unusual. It is, however, a very real way to prevent the emasculation of the assets of the holding company.

If the credit of a holding company is good, it will invariably issue its own simple securities. These will be its preferred stock, its debenture bonds, or—more generally— one or another according to the temper of the investment market. It is interesting to note the gradual substitution of preferred stock and debenture bonds for collateral trust bonds as the credit of the holding company grows stronger. When the American Gas and Electric Company was organized it issued its hundred-year collateral trust bonds, pledging its most valuable securities. The company has proved very successful. All the later issues of bonds have been in the form of ordinary debentures—in fact, debentures which are permanent obligations in so far as they do not mature for a hundred years.

---

[15] Book I, Chapter V, page 127.

Financial Structure of the Public Utility Holding Company.—Turning from theoretical consideration and purely deductive reasoning to the public utility holding company as it actually exists, one is confronted with a great variety of cases. There are insignificant concerns—holding companies in form only—which are created as a mere subterfuge to enable promoters to recapitalize a single operating company more liberally. There are great holding companies, each of them owning the equities of a hundred or more local utilities scattered "from Maine to California." Some of these, like the Standard Gas and Electric Company of Delaware, are largely holding companies for other holding companies, which operate within a relatively restricted geographical range. In a given instance it is sometimes difficult to distinguish between the small holding company and the large operating company, especially when all the municipalities served are in the same locality but the operating plants are physically distinct from each other.

Thus companies like the Southern Utilities Company and the West Penn. Power Company are almost on the border line. All the separately operated companies of the former are in Florida and southern Georgia, all of those of the latter are in a relatively confined area of western Pennsylvania. From an operating point of view, all the local properties can be managed as a unit—in fact it is conceivable that all might be physically connected by means of transmission systems. Yet in their corporate organization and financial administration they are thoroughly typical of the holding company.

Any attempt to draw an arbitrary distinction between the various types of holding companies must end in confusion, for in actual experience there are countless combinations. Yet in the cases to which special reference is made in this chapter are those which are the holding companies of many individual operating companies distinct from each other in organization and financial structure.

A study of the financial structure of the typical public utility holding company presents difficult problems. There is, usually, hopeless confusion in reaching both the net capitalization and the net earnings. This confusion is due to the fact that both subsidiaries and holding company have securities outstanding, some of which are held among the companies, some held by the parent company as collateral on the basis of which other securities are issued and some, finally, are in the hands of the public. These last only are of significance in estimating either capitalization or earnings because intercompany securities are, at the last analysis, only bookkeeping devices.

Capitalization Figures for Typical Holding Companies.—To reduce the capitalization of the holding company to some kind of intelligible form, an exhaustive study was made of the gross and net capitalization of twelve typical holding companies.[t] These twelve holding companies and their subsidiaries had outstanding approximately two and a half billion dollars of securities.[u] Of this amount about two-fifths were represented

---

[t] Graduation thesis of Harley, R. J., Harvard School of Business Administration (April, 1920, unpublished). The statistical matter of the present paragraph is taken from this source. Although the group selected does not include all the holding companies, and a more or less arbitrary method was adopted in the selection, it does include some of the largest in the country, many of medium size, and one or two of smaller size and of relatively local significance only. None of the holding companies included has more than an incidental interest in street railways or interurban tractions. In most cases the subsidiaries represent a wide geographical distribution. Both the financially successful and unsuccessful are included. The group may be considered, therefore, as representative of the public utility holding company. (See note v below.)

[u] There has never been a systematic attempt to classify all the public utility holding companies and to compute the aggregate capitalization of the subsidiaries and of the holding companies themselves. Numerous intelligent guesses have been made. For example, in a brief filed May 11, 1914, with the Interstate Commerce Committee of the United States Senate with reference to Senate Bill No. 4160, it was alleged—the supporting statistical computation was omitted—as follows: "The total capital employed in electric, gas, street, and interurban railway companies, commonly called 'public utility corporations,' in this country today is estimated to exceed eight billion dollars. Of this capital, nearly five and a half billion dollars are controlled by holding companies and their subsidiary companies. Of the approximately eighty-nine millions of people served by electric light and power and gas companies over sixty-two millions (approximately 70 per cent) are served by holding company systems.

"The electric light and power companies represent approximately two billion dollars of capital of which approximately 76 per cent is controlled by bonds, two-fifths by common stocks, and a fifth by preferred stocks. But of these two and a half billion dollars of securities only three-fifths were actually owned by investors, the remainder being merely intercompany holdings—the bonds or stocks of subsidiaries held in the treasury of the holding company against which its own securities were outstanding. Of this billion and a half of publicly owned securities, including the publicly owned stocks and bonds of subsidiaries as well as those of the holding companies, approximately a billion dollars, or two-thirds of the entire amount, was represented by bonds bearing fixed charges, and the remaining third was about evenly divided between preferred and common stocks. In other words, of the total outstanding securities of holding companies, about 40 per cent is mere bookkeeping debit and credit between companies, about 40 per cent represents publicly owned bonds, and about 10 per cent publicly owned preferred stocks; while the remaining 10 per cent represents the equity common stocks in which is vested the complete control.[v]

---

by the holding company form of organization. These utilities serve over fifty millions of people approximately thirty-eight millions of which are served by holding companies. Of 577 cities of ten thousand or more population served, 428 are served by holding company systems. Of the 114 cities in the United States of a population in excess of fifty thousand, 103 are served by holding companies. Of the 54 cities in this country having in excess of one hundred thousand population, 49 are served by the holding company.

"Artificial gas companies represent a capital of approximately one and one-third billion dollars. Of that capital, approximately two-thirds is controlled by holding companies. The gas utilities of the country serve approximately thirty-eight and one-half million people. Of this number nearly twenty-five million are served by holding companies or their subsidiaries.

"Street and interurban railway companies represent a total capital of approximately five billion dollars. Of this sum it is estimated that not less than two-thirds is controlled by holding companies. In the 28 cities of the United States having a population in excess of two hundred thousand, the mileage of track controlled by holding companies is in excess of 61 per cent."

[v] The approximate figures given above were derived from a study of the published capitalization, as of 1918, for the 12 holding companies. These figures have been revised in the tables on the following pages, with additional refinements, for the same companies (certain changes being necessitated) as of December 31, 1924.[16] Relatively few important changes oc-

---

[16] Gordon, A. H., Capitalization of Twelve Holding Companies, Harvard Graduate School of Business Administration (1925).

▾ *(Cont'd)* CAPITALIZATION FIGURES FOR TWELVE HOLDING COMPANIES AND THEIR SUBSIDIARIES

	BONDS		PREFERRED STOCK		COMMON STOCK		TOTALS
	Inter-corporately Held	Publicly Owned	Inter-corporately Held	Publicly Owned	Inter-corporately Held	Publicly Owned	
American Gas & Electric Co.	$ 370,000	$ 112,195,000	....	$ 32,439,000	$ 23,639,000	$ 14,691,000	$ 183,334,000
American Power & Light Co.	4,691,000	128,343,000	$10,909,000	72,206,000	79,945,000	16,819,000	312,913,000
American Water Works & Elec. Co.	2,188,000	155,759,000	9,602,000	69,716,000	107,965,000	19,303,000	364,533,000
Cities Service	39,657,000	235,939,000	54,326,000	127,786,000	324,550,000	53,288,000	835,546,000
Federal Light & Traction Co.	9,079,000	15,670,000	421,000	7,346,000	13,343,000	5,785,000	51,644,000
General Gas & Electric Co.	2,012,000	60,603,000	2,265,000	27,834,000	26,904,000	1,956,000	121,574,000
Massachusetts Lighting Co.	....	1,931,000	....	6,355,000	4,896,000	814,000	13,996,000
North American Co.	8,414,000	187,956,000	18,682,000	73,527,000	98,952,000	33,351,000	420,881,000
Republic Railway & Light Co.	10,836,000	38,357,000	6,551,000	16,969,000	27,333,000	6,206,000	106,252,000
Standard Gas & Electric Co.	9,767,000	141,105,000	14,174,000	71,675,000	55,503,000	18,268,000	310,493,000
United Gas & Electric Co.	103,000	38,201,000	2,307,000	13,161,000	21,056,000	3,257,000	78,085,000
United Railways Investment Co.	5,170,000	141,180,000	43,412,000	85,900,000	163,692,000	47,459,000	486,808,000
	$92,287,000	$1,257,239,000	$162,647,000	$604,914,000	$947,778,000	$221,192,000	$3,286,059,000

SUMMARY OF SUBSIDIARY, INTERCOMPANY, HOLDING COMPANY, AND PUBLICLY OWNED SECURITIES

	Bonds	Preferred Stock	Common Stock
Securities of subsidiaries:			
Intercompany owned	$ 92,289,000	$162,649,000	$ 947,778,000
Publicly owned	1,095,447,000	354,785,000	56,001,000
Holding Company securities:			
Publicly owned	162,791,000	250,123,000	165,191,000
Total outstanding securities of holding company and subsidiaries	1,350,527,000	767,557,000	1,168,970,000
Grand total of all securities	$3,286,059,000		
Total securities intercorporately owned	$ 92,289,000	$162,649,000	$ 947,748,000
Total securities publicly owned	1,257,238,000	604,908,000	221,192,000
Percentages of total securities that are publicly owned represented by different classes	60.3%	29.0%	10.7%

v *(Cont'd)*

PERCENTAGE RATIOS OF DIFFERENT TYPES OF SECURITIES

	% of Bonds of Subsid. Owned by Public	% of Total Bonds Owned by Public	% of Preferred Stocks of Subsid. Owned by Public	% of Total Preferred Stocks Owned by Public	% of Common Stocks of Subsid. Owned by Public	% of Total Common Stocks Owned by Public	% of Grand Total of Securities Inter-company Owned	% of Grand Total of Securities Owned by Public	% of Total Securities Owned by Public Repre-sented by Bonds	% of Total Securities Owned by Public Repre-sented by Preferred Stock	% of Total Securities Owned by Public Repre-sented by Common Stock
American Gas & Electric Co.	99%	99%	100%	100%	5%	38%	13%	87%	70.4%	20.4%	9.2%
American Power & Light Co.	95	96	82	87	2	17	31	69	59	33	18
American Water Works & Elec. Co.	97	98	84	88	12	15	33	67	64	21	15
Cities Service	84	86	43	70	2	14	50	50	56	31	13
Federal Light & Traction Co.	41	63	90	95	...	30	44	56	59	26	20
General Gas & Electric Co.	97	97	93	95	2	6	26	74	67	31	2
Massachusetts Lighting Co.	100	100	....	100	...	17	35	65	21	70	9
North American Co.	96	96	70	89	4	25	43	57	64	25	11
Republic Railway & Light Co.	78	78	64	72	...	19	42	58	62	28	10
Standard Gas & Electric Co.	92	94	75	84	7	25	26	74	61	31	8
United Gas & Electric Co.	99	100	74	85	1	34	30	70	70	24	6
United Railways Investment Co.	96	96	63	67	14	22	43	57	52	31	17
Averages*	92.2	93.1	68.5	78.8	5.6	18.8	36.5	63.5	60.3	29.0	10.7

* Really not averages, but percentages obtained for each column by lumping the figures concerned for all the companies together.

Difficulty of Computing Earnings.—A discussion of the comparative gross and net income of the public utility holding company presents serious difficulties, owing to varying accounting methods. Some holding companies permit the subsidiaries to account for their entire earnings as their own corporate property, merely a part of which reaches the holding company in the form of dividends. The United Gas Improvement Company, for example, takes no credit on its own books for the net earnings of subsidiaries—even though it owns all the securities—except such proportion as is paid over in the form of interest and dividends. Other holding companies obliterate entirely, apparently, the corporate distinction between the parent and the subsidiary, and claim as their earnings the total aggregate earnings of all subsidiaries, whether or not they have been legally distributed as dividends. Furthermore, there is no uniform method of computing depreciation for the plants and equipment of the individual operating companies; a holding company may even prescribe different policies for its separate subsidiaries.

The author once made an examination for bankers of certain subsidiaries of one of the subholding companies of the Middle West Utilities. The depreciation accounts presented an insoluble mystery until it was realized that the laws of one state required that specific reserves for depreciation should be set aside by all utilities, whereas no such requirement was made by the laws of an adjoining state. The accounts of the subsidiaries operating in the former state showed arbitrary charges to depreciation very clearly marked, whereas there were no depreciation charges for the subsidiaries operating in the latter state. Until this difference in the state laws was realized, it was difficult to understand why the wear and decay of one generator need not be charged to earnings, whereas the earnings of another company, under the same management, a few miles distant must be burdened by analogous charges.

---

curred, except that the public seems to have increased its relative investment in the common shares.

Several holding companies refuse, absolutely, to make public the earnings of their separate subsidiaries. In some cases the earnings from local utilities are commingled with earnings from oil properties, for several of the larger public utility holding companies have acquired extended investments in oil wells and even in oil refining and distributing companies.[w] For these various reasons a comparative study of the earnings of the public utility holding company is not of significance.

Special Types of Holding Company.—The public utility holding company heretofore described exercises absolute control over its subsidiaries. Subject to the securities of these subsidiaries in the hands of the public, it may be said to exercise absolute ownership. But there are other forms of public utility holding companies where control and ownership are neither as certain nor as direct as in these cases. Such instances are represented by three different types of public utility holding companies, each organized for a single main purpose. There is, (1) first, the holding company organized primarily for distributing investments over a large range of utilities operating under diverse managements and in diverse localities. This type is analogous to the investment company, pure and simple, especially in the sense in which the phrase is used in England. There is, again, the holding company organized for the specific purpose of enabling many small, undeveloped operating companies to market their bonds during the period of their early growth. Often holding companies of this type are under the direct tutelage of equipment companies or banking houses. There is, still again, the holding company organized by engineers to hold small interests in numerous operating companies over which they exercise the managing control. These types may be designated, for convenience, as the investment holding company, the banking holding company, and the management holding company.

---

[w] The Cities Service Company, the public utility holding company which has gone most extensively and successfully into the oil business, has three important subsidiaries with an aggregate capital of over $50,000,000, engaged exclusively in the production and refining of oil and the marketing of its products. Many of the company's other subsidiaries do an extensive business in petroleum products in connection with the distribution of natural gas. The Empire Gas and Fuel Company owns and operates oil leases and pipe lines in California, Oklahoma, Kansas, Missouri, Texas. The Empire Refining Company owns and operates pipe lines and refineries in Kansas, Oklahoma, and Texas. The Crew Levick Company owns oil wells in Pennsylvania, Ohio, and Oklahoma, pipe lines and several refineries near Philadelphia, distributing stations, and ocean steamers designed for the exportation of petroleum products.

The public utility investment holding company exists in many forms. There are cases in which a considerable sum of money originally subscribed for another purpose is invested in public utility securities because these are deemed by the trustees sound and liberal in their income.[17] There are other cases in which investments are made in public utilities, because the trustees hope in this manner to profit through the growth of the communities served, a growth indirectly reflected in the enhancement in value of the local gas, electric light, and traction stocks and bonds.[x] In all such instances, however, the securities are bought and held entirely for their income. There are no hidden motives of control underlying the purchase of these securities; nor is there any expectation on the part of the directors of the holding company to influence or even interfere with the management of the companies whose securities they buy.

The public utility banking holding company gained considerable prominence in the decade immediately before the Great War. The electric power industries increased in amazing proportions and made ever increasing demands on the equipment makers for new and enlarged machinery and on the investment bankers for capital. The banking type of holding company was created to meet these demands. Private banking houses, in order to obtain securities to sell, organized public utility holding companies either with or without the explicit cooperation of an electrical equipment organization. These public utility holding companies then acquired blocks of bonds or stocks of young operating companies, and pledged them as collateral to secure issues of their own collateral bonds. The collateral trust bonds were purchased by the public because of the credit of the holding company issuing them, rather than because of the strength of the securities of the unknown operating companies used as collateral. With the proceeds of the sale of its securities to the holding company an operating company was able to meet the cost of its improvements, and from the proceeds of the sale of the collateral trust bonds to the public the bankers were able to obtain substantial commissions.

---

[x] A company was formed in the spring of 1914 for the specific purpose of investing and speculating in the stocks of public utilities, on the expressed assumption that the increase in wealth and population would inevitably create a steady increase in the gross and net earnings of public utilities. The Great War was thrust upon the world within a few months; and public utility earnings the country over declined, except for temporary periods, steadily until 1920.

[17] Such was the case of the early history of the North American Company. See Book IV, Chapter V, notes 7 and (v).

The public utility management holding company is usually organized by a firm of engineers who control the operation of numerous local utilities—absolutely independent of one another, except that a certain community of interests subsists by reason of the common management. The engineers, wishing to assist in financing the extensions of these utilities, organize a holding company which acquires some of their bonds or stocks. The securities of the holding company are then sold by the managing engineers to the public. The previous success and good reputation of the engineers is thus made to contribute materially in securing capital for small independent companies which lack an easy access to investment funds.[y]

---

[y] Two holding companies organized by Messrs. Stone and Webster, managing engineers, are of exactly this type.

The Railway and Light Securities Company was organized in 1905 "with fully paid capital of $1,600,000, for the purpose of holding and trading in securities of transportation, lighting, and other public service corporations." Of the capital, $1,000,000 6 per cent preferred and $600,000 common stocks, bankers offered shortly after the organization five shares of preferred and two shares of common for $725. The proceeds of this sale were invested primarily in stocks and bonds of companies managed by Stone and Webster. In December, 1905, bankers sold $500,000 par value of the company's 5 per cent collateral trust bonds, secured by $625,000, par value, of the bonds of companies under the Stone and Webster management. The company obtained further capital from time to time by the issue of additional stocks and bonds, so that by January 1, 1926, it owned the stocks and bonds of 46 companies, 20 of which were managed by Stone and Webster. See reports of the company; also 80 Chron. 721.

The Public Service Investment Company was organized in 1909, with the avowed purpose of obtaining a fund with which to buy and hold for income and appreciation in value the common and preferred shares of companies operated and controlled by Stone and Webster. The capital was fixed at $1,500,000 6 per cent preferred and $1,500,000 of common stock. The stock was offered by Stone and Webster in "blocks" consisting of ten shares of preferred and ten of common for $950 per block. The immediately apparent dividends from the stocks acquired would yield an income of 6 per cent on the preferred and 2 per cent on the common stocks of the Public Service Investment Company. On January 1, 1920, the company owned a little over $5,000,000 of common stocks of local utilities and a little less than $1,000,000 of the preferred stocks. The investments were invariably in stocks of companies controlled and operated by Stone and Webster. The earnings of many of these local utilities were unfavorably affected by war conditions, so that the dividends on their common stocks ceased. In consequence, the Public Service Investment Company was forced to cease paying dividends on its own common stock, although the regular rate on the preferred stock was continued. On February 1, 1912, dividends on the common stock were resumed, and have been continued ever since. In fact, by 1925 through the excellent management of the subsidiaries and the growth of the volume of electric light and power sold by the operating companies the net earnings available to the Public Service Investment Company's common stockholders had quite recovered from the war blight.

CHAPTER VI

THE COMMUNITY OF INTERESTS

Problem of Business Organization.—All the forms of combination heretofore described represent actual, virtually complete, consolidations of business units. The ownership and the management of the small units are thoroughly and completely merged. The component parts of a great industrial "trust," a great railway system, or a great power company are merely parts of a completely organized whole. They have no independent ownership, no independent financial structure, and above all their directors have no separate power of initiative. The name of a branch line of railway may be retained and there may be outstanding in the hands of the public separate issues of bonds, but the branch line has no separate management independent of the management of the whole railway system. Its earnings are merged. Its schedules of trains are made to fit into the schedules of the whole system. If it preserves, in order to retain some old non-transferable franchise, a separate corporate structure, the directors and officers are the same as those of the whole system, or else are men nominated by them. In brief, the branch line is merged in all except its name with the railroad system of which it forms merely one of many parts.

But, admitting the advantages of complete consolidation in the various lines of business, it has been found, invariably in practice, that the very closeness of the consolidation has been attended by many disadvantages. It suppresses individual initiative. The big business has gained in weight, momentum, and width of power, but it has lost in spontaneity, capacity for detail, and depth of penetration. It gained the brute force of great size; it lost the agility of small size.[1]

---

[1] One very important phase of this subject has been discussed already in Book IV, Chapter III.

This idea was well expressed by an English writer who is, admittedly, unsympathetic with small business enterprise and fails to recognize the efficacy of competition; yet he says, "Where there is struggle for survival or supremacy among hosts of small concerns in the same line of business, each man knows what it is to carry the responsibility of a business and to stand or fall by its success or failure. The incentives to effort are strong. Each has a direct personal interest in improving methods, eliminating waste, reducing costs, and striking out in new directions. There is wide diversity and ample opportunity for experiment. Initiative and resource are developed in large numbers of individuals. There is, without doubt, something of an evolutionary struggle, in which those well endowed with the qualities that make for commercial success survive and the less competent, or worse equipped, or more sensitive go down and out. Again, the small man's independent business is a thing to himself, and, in a very real sense, a part of himself. The small business concern has personality. The employees of a small firm work for a person, and the relations between proprietor and workpeople, if not always cordial, are at least human relations. Business dealings with a small firm are dealings with a person, and there is little doubt that the personality of British industry in the past has been a powerful factor in its development. The type of character produced by these influences may not be wholly admirable, but it is at any rate strong, forceful, and self-reliant."[2]

Balance between Unity and Diversity.—Throughout every field of human thought there is the antithesis between the large, all-embracing unity and the small, distinct individuality. In its broadest aspect, it is a contrast between personalities—Heraclitus and Parmenides, Abelard and Anselm, Leibnitz and Spinoza, Locke and Hegel. In political theory and practice, it is the contrast between the relative advantages and disadvantages to its inhabitants between the small state and the large empire. In social theory, it is the contrast between the residuum of human happiness vouchsafed us mortals by industrial individualism and by socialism. And finally, in the limited field of modern business, it is the contrast between two types of business organization.

---

[2] Hilton, J., "A Study of Trade Organizations and Combinations in the United Kingdom," Printed in the Report on Trusts prepared for the Ministry of Reconstruction, and dated April, 1919.

On the one hand, there is the small, mobile, and compact business unit—the owner-manager business in which quickness of appreciation and personal initiative do much to counterbalance ignorance and lack of organization. On the other hand there is the "big business," often the largest single factor in an industry, in which great size and a kind of perfection of mechanical organization do much to counterbalance the lack of individual initiative and the lack of personal contact with employees and customers. Certain types of mind emphasize the particular. In their thought, and when they are called upon to play a part in our modern commercial world, they prefer their own, personally dominated business, every detail of which remains incessantly under their supervision. The opposite type thinks and acts in terms of economic generalities. It is endowed with great imagination. It suppresses differences and exaggerates likenesses. To such a type of mind details are abhorrent; business is to be unfolded like the plot of a great drama, in which individual character and incident are significant only as they further the end. Mere size is its own justification. And under the spell of men of this type business strategy becomes a mad rush toward consolidations, holding corporations, and other devices which enable a few to control large amounts of labor and capital.

It is a very pertinent question: Can there be a form of business organization which retains the initiative and responsiveness of small size and at the same time the scope and integration of the big organization? In other words, can there be a form of business organization which embodies the strengths both of the individual unit and of the combination of units? Or, putting the matter in another way, does the evolution of modern business forms bring into existence a new form in which business individuality and business unity may both exist? This is the problem of the present chapter.

Evolution of Business Organization.—The intermediate stages of organization between the small unit and the consolidation of many units may be described briefly from an historical point of view. A multitude of small producing and distributing businesses that flourished at the time of the panic of 1873 were combined, for reasons heretofore described, into great industrial combinations that flourished just before and just after the panic of 1893. The ten years from 1879-1889 were in many respects a transition period from the small to the large, and in this transition period various forms of indirect and loose combinations were tried in the effort to solve the problem of a balance between the free and unbridled competition of business individuals and the growing demand for a real cooperation in business that leads directly to consolidation and large industrial units.

It is not the purpose of this discussion either to recount the evolution of industrial forms of organization during the transition period, or to present an exhaustive summary of all such intermediate forms as may exist.[a] But as an introduction to

---

[a] A note should be added, perhaps, to point out what is not intended in this connection. The text above refers only to types. It makes no pretense of exhaustiveness. Above all, no attempt has been made to present an array of the different kinds—by order, genus, and species—of the trade associations.

There have been, ever since the later eighties, innumerable studies by economists, jurists, and students of social tendencies of the various types of pools, trade agreements, and clandestine price-maintenance agreements which have from time to time appeared in the business world. Each writer has his own classification of these forms of inarticulate combination, and the methods of classification are as varied as the interests, presumptions of social theory, and the economic postulates of the classifiers. Pools, trade associations, price associations, "Gary dinners" are all examples of the wide and ever widening range of loose business organizations which might, acceptably, be included in a classification of trade associations. In all cases, however, it is acknowledged that the fundamental characteristic of every trade agreement and pool is an attempt to obtain some advantage that arises through combined rather than independent action. Ripley in his introduction to "Trusts, Pools and Corporations" gives a brief classification with the few types of contemporary importance that it is intended to describe, a brief historical summary of the stages through which this evolution passed may serve as a pertinent introduction. The use of the idea of evolution is not a mere figure of speech. There is a close analogy between organic evolution—moving from the simple to the complex, from the elemental to the derived, from the homogenetic to the heterogenetic—and the transitional stages of business organization described here. Even the definitive principle of ontogeny made famous by Haeckel, that the embryonic and adolescent life of the individual is a shortened recapitulation of the evolutionary stages of the race, is not without its counterpart in modern business organizations. At the present day hardly a large business corporation is organized which has not, in the years immediately preceding its final development, passed through some of the transitional stages through which business organization as a whole passed in the transitional period between the panics of 1873 and 1893.

Gentlemen's Agreement.—At the close of the Civil War and down to the depression following the panic of 1873, American manufacturing business consisted, for the most part, of small independent units. These simple businesses were owned and managed by a single individual, by the heirs or the members of the family of the founder, or by a group of local merchants who subscribed to the stock of the local mill. However existing, whether proprietary or a locally owned corporation, the business was narrowly limited in size and in scope of activities. Competition was severe. Co-operation of any kind was unknown, and motives of industrial independence and

---

special reference to the different types of pools.[3] As a result of the economic conditions attending the Great War, hundreds of trade associations were organized in Great Britain. An attempt to classify these has been made in a Report on Trusts made to the Ministry of Reconstruction, dated April, 1919.[4]

---

[3] Ripley, W. Z., Trusts, Pools and Corporations, Chap. XII (1916). An exhaustive and easily accessible array of these trade associations is represented by five chapters in Haney, L. H., Business Organization and Combination, Chaps. X to XIV (1914).

[4] See Book IV, Chapter III, note (d).

isolation governed the business policy of American manufacturers.

In the years before the panic of 1873, railroad construction and consolidation had so widened the area within which competing manufacturers could sell their product that in the boom period following the depression of the middle seventies, competition was extended over a wider field than ever before. Under the stimulus of an increasing volume of business and rising prices, manufacturers invaded each other's territory. Competition reached an unprecedented degree of severity, and in this competition the larger units were able, by rebates and midnight tariffs, to secure more advantages from the carriers than the smaller units through rampant individualization and cutthroat competition. The pendulum began to swing toward larger units and co-operative trade practices.

The first stage in this evolution, both historical and logical, was the gentlemen's agreement governing the area of competition. Often, as a result of a casual meeting, manufacturers agreed not to send salesmen into each other's territory. The second step was the gentlemen's price agreement, likewise often the result of a mere casual conversation. The manufacturers agreed upon a minimum base price, below which they would not sell their goods. In both of these instances, there were no written contracts, for even before the passage of the Sherman Act in 1890, it was vaguely felt that all such agreements were contrary to the common law of restraint of trade. Business men merely agreed that they would be bound by their verbal agreement "on their honor as gentlemen."

Pools.—The gentlemen's agreements with regard to the territorial distribution of sales and with regard to cutting prices were both invariably broken. The manufacturers could not be held in law or equity to observe their agreements, and there was no other way of enforcing them. Competition which had extended over years, possibly over generations, could not be annulled by a verbal understanding, the very nature of which was at variance with our Anglo-Saxon law. Accordingly, some kind of loose but centralized and direct control had to be voluntarily endured by the manufacturers in order to render their verbal agreements effective. Such a centralized control was first accomplished by the pool. All pools had as their immediate object the direct control over the production or the distribution, or both, of all the co-operating manufacturers. This control was invariably vested in a central bureau which attempted to exert a mild dictatorship. On the relative strength of this dictatorship and the means at hand to enforce it depended the relative strength of the pool and its position in the evolution from the rudimentary gentlemen's agreement to the true business consolidation.

The managers of the simplest pool merely sought to distribute the output of the members. The central bureau, usually represented by a paid secretary, apportioned the business available in accordance with a prearranged schedule. This schedule sought to allocate to each manufacturer an amount of the available business that was proportional to his total producing or distributing capacity. But such pools were ineffective, because the central bureau had no real authority to hold each manufacturer to his proportional allotment. A second type of pool required that the manufacturers belonging should bid among themselves for contracts, the proceeds of the bids being distributed among the members of the pool.[b] A third, and by far the most important type, was known as the "paying-in and drawing-out" pool. The cases of this type were very numerous.[6] They were based, as were the two simpler types,

---

[b] The "cause célèbre" of this type was the pool of manufacturers of cast iron pipe, known colloquially as the Addyston Pipe Pool. The case acquired considerable notoriety because the decision of the United States Supreme Court condemning the organization of this particular pool constitutes an important, perhaps nodal point, in the evolution of the judicial interpretation of the Sherman Act of 1890.[5]

---

[5] For extensive description see 78 Fed. 712; 175 U. S. 211. Sections reproduced in Ripley, W. Z., Trusts, Pools and Corporations (1916). See also Haney, L. H., Business Organization and Combination, 172 (1914).

[6] A large number of such pools have been described in economic literature. See Haney, L. H., The Business of Railway Transportation, Chap. XI (1914). An excellent example is found in the Southern Railway and Steamship Association of which a description is given in Ripley, W. Z., Railway Problems (1913).

2 - [illegible] 3

3. Trade associations 2

4. manufacturers associations

5. interlocking directorates

on the distribution of the available business according to the total net capacity of the manufacturers belonging to the pool. Those manufacturers whose sales exceeded their proportioned allotment were to pay to the central treasury the total net profit realized in excess of their allotment. And, on the other hand, those manufacturers whose sales fell below their proportioned allotment drew from the pool's treasury the net profit on the sales representing the difference. No manufacturer belonging to the pool could, therefore, obtain an increased profit through an increase of sales. Thus there was no incentive for a manufacturer to cut under the selling price agreed upon by the pool in order to increase his sales. But even these closely organized pools failed of their object, either because of the growth of outside competition, or because of the deceit and perfidy of the members. Consequently the pools of all descriptions became disorganized.

3

In the instance of one pool, the history of which came under the writer's observation, an important member kept two sets of books. One set showed his true sales and was kept for his own information. The other was a fictitious record of sales prepared especially for the inspection of the pool's auditor in such a manner as to show much smaller sales. In this manner the manufacturer could make a surreptitious profit through an excess of sales beyond his allotment without being forced to pay back the profit to the pool's treasury. This ingenious plan was soon discovered by another member and it immediately caused the disruption of the pool.

Later Stages of Evolution in Industrial Organization.— The failures of the pools were due to causes deepset in human nature, and to safeguard themselves against the avarice of each other the promoters of the pools turned to the trust form of organization. Later, especially after the passage of the New Jersey statute permitting the formation of the holding company, the organization of the large business enterprise was finally moulded into the form of the corporation. These later and advanced stages in the evolution of business organization have been treated already in the sections dealing with industrial consolidation.[7]

Reaction Toward Smaller Business Units.—Notwithstanding the development of the more highly organized forms of business organization and the universal acknowledgment of the efficacy of the large corporation as a means of carrying on certain types of business, the defects of mere size are apparent. These were discussed at some length in a preceding chapter and need not be repeated here. But the thing of importance is that these defects are being more and more fully recognized, and with this recognition a reaction has set in toward the adoption of the smaller business unit. Mere consolidation—mere bulk—is not of itself and of necessity a source of strength. With this acknowledgment the permanent, if not the paramount problem of our contemporary industrial democracy becomes the working out of the relations between the large and small business, and the bearing of each upon the problems of the economical use of labor and capital. The solution is not in working back over the road along which industrial evolution passed from the small business to the great corporation. The historical forms through which this evolution passed were negative. Gentlemen's agreements, pools, and the like, had as their object the stifling of competition. The intermediate forms now sought are positive. Industry is in a flux. Ease of transportation, the general dissemination of technical knowledge, the scarcity of labor, the great accumulation of funds waiting for investment—all facilitate the formation of large units. In consequence, the intermediate forms which are now coming into prominence seek to temporize the inherent defects of big business with some degree of the freedom and spontaneous initiative of highly individualized and independent parts. An exhaustive summary of such forms is not within the present purpose, but two general movements deserve rather detailed attention both because of their own significance, and because of the balance between the large and the small that they illustrate. They are the association—a loose, but co-ordinated form of union—and the community of interest—a closer form of union with a limited concentration of financial responsibility.

---

[7] See Book IV, Chapter III.

Trade Associations.—Trade associations in one form or another have been in and out of fashion for many years. In the closing decade of the last century they furnished the fertile soil from which sprang the earlier industrial "trusts." Men found that the agreements made in the association meetings had no binding strength at law, and they sought a more direct and explicit means of suppressing competition. Out of the association agreement grew up the trust, and out of this the great industrial consolidation. But at the present time the movement is in the opposite direction. The problems are not so much those of suppressing competition as those of mutual protection against the demands of labor unions, the assessment of inordinate taxes, and the enactment of unfavorable tariff legislation, on the negative side; and the development of trade advantages in the presence of competitive substitutes and the exploitation of foreign markets, on the positive side. All competitors in any industry are interested in these ends; at the present time they are much more interested in them than in secret price agreements and pooling contracts.

The types of trade association now prominent, that squarely face the issue of the relative advantages and disadvantages of individual and united action and seek to bring about an open, direct, and relatively permanent solution of the problem are in two general classes. (1) There are district associations, which include all manufacturers or all retailers in a certain geographical district. (2) There are also trade associations, which include all manufacturers or all wholesalers or all jobbers in any single line of business. The two classes are quite distinct and each seeks to achieve separate ends.

District Associations in Industrial Centers.—The district association, of which there are numerous examples in the smaller industrial centers of the East, embraces all the manufacturing establishments within a specific geographical locality. These district associations, often the direct offshoots of the local chambers of commerce, are usually formed for the ostensible purpose of stimulating the industrial activity of the locality. This, as stated, is their ostensible purpose. Quite generally, however, their real purpose is to create a solid front of opposition to the inordinate demands of organized labor, or even to fight for or against differentials in freight rates before railroad commissions.

The organization is much stronger than the ordinary chamber of commerce. Its secretary—the title usually bestowed upon the man who serves as the general manager of the organization—exerts almost an autocratic power among the members. He may practically order one manufacturer to increase his wage schedule if it appears that the industrial peace of the community requires it, or he may, for the same reason, order another manufacturer to decrease his. If there is a strike in the plant of a member of the association, it becomes a matter of concern for the entire association. If it is obvious to the acute intelligence of the association's secretary that the men on strike have a justifiable ground of complaint, or that a quick settlement of the dispute is wise from the point of view of economic expediency, then the secretary will adjust the differences, quite generally in favor of the men, and order the manufacturer to accept the decision. If the manufacturer refuses, he is dropped from the association. If, on the contrary, it is apparent to the association's secretary that labor troubles would be fomented in other industries should the striking laborers obtain their demands, or that their success would establish a dangerous precedent, then the association as a whole, on the recommendation of the secretary or an investigating committee, assumes the responsibility for the strike. The manufacturer suffering from the labor trouble obtains the support of the manufacturers of the entire district. The association bears the expense out of the proceeds of assessments levied on all the members.

In an industrial community the influence of an association of manufacturers of this character is apparent at once. The intelligent cohesion of all the members of the association gives to each manufacturer, no matter how small, the strength belonging to the large consolidation in respect to the purchase and control of the most important element in the total cost of his product. Yet, by reason of the fact that the activities of the association are geographically limited and carefully circumscribed by its by-laws and the vote of its members, each manufacturer has complete freedom in all other details of the administration of his business. In this way the association combines the strength of group action with the freedom and initiative inherent in the small business.[c]

---

[c] The city of Taunton, Massachusetts, has some peculiarities as an industrial center that give it more than common interest. Like many small cities, it enjoys a marked diversification of industries. While it is the center of the stove foundry business of New England, it includes, besides, a multitude of other manufacturing businesses. There are foundries of various types, machine-shops, cloth and yarn mills, copper and brass works, silversmith establishments.

Most of these establishments require skilled labor. Nevertheless, with the exception of the molders' union there are no important unions among the skilled workers employed by the manufacturers. In the case of the molders' union there have existed agreements between the union and the National Founders' Association for over twenty-five years and during this long period of time, judged in the history of American labor agreements, neither the unions nor the manufacturers have attempted to break the agreements. On the whole, therefore, it may be said that Taunton is strictly an open shop city with one exception and that this one exception represents a union which has participated but little in labor disputes. The total number of employees in the manufactures has been as high as ten thousand and as low as sixty-five hundred. It usually ranges between seventy-five hundred and eight thousand.

Because of the great variety of businesses which are carried on in Taunton there cannot be a local association including the manufacturers of a single product. As a result of these conditions, a closely organized association of manufacturers was formed which included practically all the large employers of labor in the district no matter what the character of their business. The membership in the association depended, therefore, merely on the geographical location of the plants. It was organized, and still is a district association in a very true sense.

The Manufacturers' and Employers' Association of Taunton was formed in 1917. It now (1926) comprises about 50 different employing corporations. Its by-laws and constitution are somewhat elusive, and propose as

Agricultural District Associations.—The district associations are not confined to industrial localities where the management of labor is perhaps the most insistent problem. They are very common and very influential in agricultural districts devoted to the production of a single commodity. Here, however, the problems that absorb the attention of the association are not those of production but of distribution. In consequence, the products of all the members of the association are marketed by the association under a single generic name, such as "Sunkist Oranges" or "Sunmaid Raisins." Expenses of advertising, of carload shipments, of wholesale merchandising, which no one producer could afford to bear alone, are shared by all the members of the association in proportion to the production of each True, the association's secretary may prescribe conditions of excellence with which the fruit of each member must comply before its sale is undertaken by the association, but these conditions have regard only to the character or quality of the product, not to the methods followed or the economy in raising the product or the wages and working conditions of the labor

---

the objects of the association the furthering of the industrial and commercial welfare of the Taunton district, and fostering among the members of the association "a spirit of friendliness and progress." In detail, it proposes to equalize and stabilize wages, to reduce labor "turnover," and to protect the Taunton district against unfair freight rates. Its officers consist of a president, whose position is purely honorary, and a salaried secretary, upon whom devolve the affairs of the association. Almost from the first, its problems centered about labor, and to meet these labor problems in detail, the association, at an early date, adopted certain general policies. The association advocates that the wages paid in any one plant be not lower than the wages in another plant doing the same kind of work. The association advocates that the hours of labor and general working conditions be uniform through the district, unless circumstances determine that they be otherwise. The association seeks to have knowledge of all labor conditions throughout the area. It carries on an employment bureau for the benefit of the members and labor in general. If a strike threatens, the association, through its secretary and its executive board, conducts an investigation on its own behalf. If this investigation shows that the employees are demanding no more than economic conditions warrant, or other manufacturers engaged in the same business are paying, then the association decides for the men, and exerts its pressure to force the employing firm to accede to the demands. If, on the contrary, the investigation shows that the employees are making unreasonable demands, the pressure of the association is exerted to break the strike.

There has been no labor trouble in any factory in Taunton since 1918.

employed by the planter. These are left to the personal initiative of each member of the association.[d]

---

[d] An excellent illustration of such a district association for the marketing of agricultural products is the California Fruit Growers' Exchange. This is a co-operative, non-profit organization built up by the orange-growers of central and southern California to supervise the packing and manage the marketing of citrous fruits.

Oranges were first shipped from California (the Woolfskill Orchard in Los Angeles) to an eastern market in 1877, from which time the size of the industry increased steadily. The California producer was at a disadvantage in the central and eastern markets, as compared with the Florida grower, because of the greater time and expense required to get his fruit to the centers of consumption in the northeastern states. So that when large groves, planted at first because of the apparent profits of the early shippers, began to come into bearing there was large overproduction of the California fruit. The growers found their business mere speculation, whether they sold their crops to contractors or shipped to commission merchants. Accordingly they organized the Orange Growers' Protective Union. This failed to improved the conditions. About 1888, one T. H. B. Chamblin organized the Pachappa Orange Growers' Association at Claremont, in order to permit a group of small growers to own and operate their packing plant. This local association was on the whole successful and obtained better returns for its members than those obtained by independent growers. In Los Angeles, accordingly, in 1893, a meeting of the owners of orange groves was held, who, influenced by Chamblin's enthusiasm for the "co-operative plan," planned the formation of numerous district co-operative associations like that already organized at Claremont. There was to be a central association consisting of a representative from each local association. The whole organization was to be carried on without profit to itself, in order "to provide for the marketing of all the citrous fruit at the lowest possible cost under uniform methods, and in a manner to secure to each grower a certain marketing of his fruit and the full average price to be obtained in the market for the entire season." Such an organization was formed, which, in 1895 took the name of the Southern California Fruit Exchange. It prospered, although it was some years before half the orange crop of the state was marketed through its agency. The citrous fruit acreage of California rapidly expanded so that in 1905 the name was changed to the California Fruit Growers' Exchange. This organization prospered and grew strong, and is today the largest single factor in the world in the citrous fruit industry.

The California Fruit Growers' Exchange, as now constituted, consists of three units—the local association, the district exchange, and the central exchange. The local association is formed by a group of growers owning contiguous groves who contribute the necessary capital. A certificate of membership cannot be assigned, nor have the members any rights except through the by-laws of the association. They appoint the association their "sole agent to pack and sell all citrous fruits which may be grown in our respective orchards during the entire period of membership." The contributions to the capital necessary to build the packing houses are contributed in proportion to the bearing acreage, while the profits are divided in proportion to the quantity and quality of the fruit delivered by each member. This encourages intensive development and promotes efficiency. The fruit of each grower is picked, graded, and sold by the association, the manager of which, in the majority of cases, has absolute and dictatorial powers over these matters. And a member who fails to comply with the by-laws of his association or obey the orders of the manager is penalized or else excluded.

Unanimity of Membership Necessary.—There are many associations which meet to a greater or less extent the general

---

These local associations vary considerably in size. Their membership may include from fifty to two hundred growers, and a single association may ship as much as a thousand cars of fruit.

The local associations are grouped together in the form of district exchanges. These district exchanges are the intermediary selling agencies which attend to the details of marketing; they are the middle terms between the local associations, which have nothing to do with marketing, and the California Fruit Growers' Exchange, which organizes, in national scope, the marketing of the entire crop produced by all the co-operating growers. This latter is the crux of the whole system.

The California Fruit Growers' Exchange is controlled by a board of directors chosen by the seventeen odd district exchanges, just as the directors of the latter are chosen by the local associations. Its duty is to direct the marketing—at profitable prices and at a minimum expense—of the entire crop of the members of the local associations. Accordingly it has established a trade-mark brand, "Sunkist," and is spending approximately $250,000 a year in national advertising. It maintains representatives in the chief eastern fruit-distributing centers, and from them obtains information of the conditions of the fruit markets all over the country. These representatives telegraph to the home office the sale of every car of fruit, and the central exchange issues a daily bulletin to each of the district associations, telling them of the conditions of the markets in the fruit-consuming areas. It does not sell any fruit directly—that is the function of the district exchange—but it supplies the nation-wide facilities for these exchanges to work with. "The agent in the market acts directly under the order of the shipper, who determines the prices at which each car shall be sold outside of the auction markets, and all other matters connected with its distribution, the California Fruit Growers' Exchange acting as the medium through which orders pass from the agent to the shipper, but never selling a car or determining the price at which the fruit shall be sold."

In addition to these marketing facilities, the California Fruit Growers' Exchange attends to the collection of accounts and the adjustment or litigation of claims, and carries on researches intended to extend the sale and consumption of citrous fruits. To further these ends it has created the Fruit Growers' Supply Company which furnishes orchard and packing house supplies and has even acquired a tract of over 40,000 acres of timber with facilities for manufacturing 125,000,000 feet of timber annually into orange box shooks. It has created companies to manufacture citric acid and marmalade. It has retained counsel to lobby for a reduction in freight rates on citrous fruits and an increase of duty on foreign importations.

It should not be inferred from the apparent success of this co-operative effort, that co-operative associations of the producers of agriculture or of producers of commodities in general are likely to be equally successful. Peculiar and individual economic conditions surround the marketing of California oranges. The producer is upward of three thousand miles from his market. His product is perishable; it is a luxury for which a demand must be created and sustained and the costs of marketing (transportation and refrigeration) nearly equal the net value of the crop in the orchard. All these considerations point to the greater success of large-scale as compared with small-scale distribution. Yet raising citrous fruits is essentially a small-scale business. It requires great detail; it is "fussy." Expensive machinery cannot be utilized and the labor that is employed must have a high degree of skill. Consequently the greatest productivity can be obtained with small individualized production; but the greatest economy of distribution description of these district associations. The great difficulty, as with all associations, pools, and voluntary trade agreements, is to secure such unanimity of membership that the decisions of the association command respect, and such strength that comes from the voluntary action of a united body. Membership is entirely a matter of self-interest. A weak association defeats its own ends; and this weakness may be due either to lack of support from the members of the district, or else to a vacillating, stupid or headstrong secretary and executive committee. Experience has shown it to be unquestionably true that district associations of this character achieve worth-while ends only if they receive practically the unanimous support of all the manufacturers within the district, and are led by liberal-minded, tolerant, and courageous men.

Manufacturers' Associations.—Another type of association is that of the manufacturers or producers in a given line of business.[9] Membership is based on the nature of the product, rather than on geographical location. These associations aim to include every manufacturer in the country engaged in the industry. Their prototypes of twenty or thirty years ago were the trade associations which fostered the pooling agreements, gentlemen's agreements, "Gary dinners," and other forms of secret and illicit combinations of manufacturers organized to restrict competition. The difference between the older and the newer types is one of intent, rather than form. The purpose now is positive—to familiarize the public with the products of the industry, to secure tariff legislation favorable to the industry, to prevent repressive or harmful legisla-

---

can be obtained through large-scale marketing. It is the opinion of the writer that a large corporation, conducted for profit, could probably distribute the California citrous fruits more economically than does the co-operative association.[8]

---

[8] Further details in Cumberland, W. W., Co-operative Marketing (1917); U. S. Dept. of Agriculture Special Report No. 98 (Jan. 2, 1913); Univ. of Calif. Agric. Exper. Station Circular 123. (Oct., 1914)—contains a bibliography on co-operation in agriculture; Western Fruit Jobber (Mar., 1916); the various annual and special reports of the California Fruit Growers' Exchange; *California Citrograph*, the periodical of the industry; *Los Angeles Times*, March 10, 1920

[9] An excellent example of this type, a description of which is easily available, is the National Founders' Association. See 30 Quart. Jour. Econ. 352 (Feb., 1916).

tion, to retain competent counsel to represent the industry at judicial hearings.

The two most important objects usually sought for by nation-wide manufacturers' associations are the extension of the demand for the products of the industry and the protection of the industry against attack.[e] In the results of both of these lines of effort all the members of the association share the benefit.

Increasing Demand for Products.—The activities in the direction of increasing the demand may take the form of a nation-wide advertising campaign to increase, directly, the retail sales of the products by exciting a demand in the minds of consumers. This is profitable, or rather expedient, only when practically all the manufacturers in a specific industry co-operate in the publicity expenses. Most manufacturers prefer to pay for advertising their own specially branded products, rather than for advertising the products of the industry in general. But when manufactured products cannot advantageously be sold under trade-marks, and when the demand to which appeal is made is the demand for the commodity in general, as opposed to similar competing products, like "cypress, the wood eternal,"[10] or walnut, "the noblest of all cabinet-woods,"[11] then the advertising can better be done by an association rather than by the individuals.

These activities for increasing the demand may also take the form of exploiting foreign markets. Prior to the Great War the efforts of our manufacturers to sell goods in foreign, competitive markets were of a most desultory character. Our manufacturers, protected by a tariff wall, were too busy exploiting domestic markets to concern themselves with foreign con-

---

[e] Again it should be observed that no reference is here extended to trade associations organized primarily, perhaps entirely, to restrict or allot output and maintain or raise prices. The English report referred to in Book IV, Chapter III, stated as its opinion that all the trade associations organized during the Great War had these purposes primarily in view.

---

[10] Customary advertisement of the Southern Cypress Manufacturers' Association.
[11] Customary advertisement of the American Walnut Manufacturers' Association.

sumers. But the Great War changed utterly the point of view. And in the period following the war they find themselves forced to consider foreign markets—either to protect themselves against foreign competition or else to dispose of their own surplus production. Many manufacturers' associations, notably in the copper, steel, and textile industries, already—before the Great War—had bent their efforts toward foreign selling. And when the liberal privileges of the Webb Act are more fully understood, the activities of these associations in this direction will undoubtedly be increased.

Protection Against Political Attack.—The other important activities of these associations are in the direction of the protection of the industry against legislative or political attack. The manufacturers' associations in the textile industry, for example, have already sought to influence tariff legislation for the benefit of their own interests; associations of manufacturers of boots and shoes have bestirred themselves when the tariff on hides came under discussion. Many industries are subject to indirect attack through special legislation. The Investment Bankers' Association has fought, in the lobbies of the state legislatures, and in the courts, the enactment of blue-sky statutes. Associations of food manufacturers have fought "labeling" and "branding" laws; associations of fire underwriters have fought state fire insurance; and liability underwriters, the various forms of compulsory state liability insurance. In all these and in similar cases, the associations exist—indeed they were often organized—for defensive purposes, but their influence usually develops along constructive lines.[f]

---

[f] One of the best examples of a coherent and highly organized manufacturers' association exerting itself both in the direction of increasing the demand for the products of the industry and in the direction of defending the industry against legislative attack, is afforded by the American Manufacturers' Association of Products from Corn. As this association is, by reason of the small number of concerns engaged in the wet milling of corn, rather a compact and highly developed manufacturers' association, it is worth while to examine its tenets and its activities at some length.

For many years the American manufacturers of glucose and starch made from corn had fought against a popular prejudice against the use of glucose as a food. In the minds of some people, this prejudice was due to

Community of Interests—Various Types.—The other type of business structure, representing the effort to obtain the

---

the similarity between the words "glucose" and "glue"; in the minds of others it was due to the original use by Kirchof and by the early commercial manufacturers of sulphuric acid as a catalytic agent. But the missionary work carried on by each manufacturer was desultory; it was an unimportant part of his general policy in advertising. In 1912, it occurred to certain men in the industry that this work of educating the public to the uses of the products of corn and of defending the industry against popular prejudice could be carried on best by an association in which all the manufacturers concerned contributed to the expenses in proportion to the benefits derived from the work. Accordingly such an association was formed March 12, 1913.

The objects of the association are specifically defined by its constitution as:

"First. To maintain the standard of purity and quality of products from corn in all possible ways.

"Second. To take united action in correcting all opinions adversely and unjustly affecting the consumption and uses of products from corn.

"Third. To educate the dealers in and consumers of products from corn in regard to the purity, wholesomeness and uses of said products.

"Fourth. To take united action in respect to all questions before State or National Legislatures wherein untrue impressions in regard to the nature and uses of products from corn are involved, and whereby unjust rules, regulations, standards or laws restricting or adversely affecting the sale of products from corn may ensue."

Other articles of the constitution provide for officers and a board of directors. The latter shall receive no salaries, but are entitled to be reimbursed for legitimate expenses. Besides the annual dues ($100 for each member), "assessments may be made by the President, with the unanimous consent of the Board of Directors.

"When assessments are made, each member shall be notified of the specific purpose for which the assessment is to be used.

"In making assessments, the President shall designate the amount each member shall be assessed, the said amounts being based upon the interests of the respective members in the purposes for which the special funds are to be used, and upon the volume of business of said members so interested."

The association was a success from the beginning. There are not more than nine important manufacturers in the United States, and all of these presently became members, so that the association had the strength that goes with unanimity of action.

It entered immediately on vigorous campaigns to extend the use of corn products. It published corn-books for housewives, pamphlets on mixed flours for bakers, and on glucose for candy-makers. One publication intended to reach the farmers contains the following:

"Mr. Farmer:

> You are interested in the increased flow of corn from the cornfield to the home and so are we.
>
> For the third year the doors of our office at Chicago stand open with a welcome to the corn belt. We represent 'corn publicity'—larger acre yields, faultless 'products of corn' manufacture, and the swiftly increasing home consumption of pure corn foods.
>
> Corn is our greatest natural source of wealth, and the manufacture of it into such varied products, adaptable as they are to so many uses as foods and in the arts, makes it a national institution

mobility and spontaneous initiative of the small independent unit and also the scope of the large organization, is a community of interests. This is not new. Nor can it be defined with precision. The dominating idea is an effort to establish a balance between complete independence and complete coordination. The community of interests implies a number of business units having considerable independence of action with respect to one another, and yet such unity of purpose that the fortunes or misfortunes of each affect the others or some common interest to which all are related. In most cases, also, the financial affairs of the units are linked together by some quite direct means, so that there is uniformity of business policy.

There are many instances of community of interests in modern business, and they represent various types of relationship and various degrees of unified organization; and for these

---

which creates the liveliest interest and should have the enthusiastic support of all the community, especially the farmer.

1. The hand of the farmer touches our hand.

2. The corn grower cannot overestimate the importance of the 'products of corn' industry.

3. Our booklets give the best available information on corn products.

4. Any discrimination against corn foods is a blow at the corn grower.

We have a corn products exhibit for schools. Have your teacher send for it. Our publications are as follows:

'Corn and Its Uses.'
'References as to the Wholesomeness of Corn Syrup.'
'All Made from King Corn.'
'Candies Good for Children.'
'For Better Baking.'
'Process of the Manufacture of Corn Products.'
'Dr. Bryant's Address on Corn Syrup.'
'Food at Fifty Cents a Day.'
'Wash Day.'
These are free."

In addition to these efforts to increase the consumption of corn products, the association has fought legislation which might tend to decrease their use or further prejudice the people against them. For example, it prepared the case for the glucose manufacturers in the "Hearing before Illinois State Food Standards Commission in the Matter of Investigation of Corn Syrup (Glucose) and Its Use in Foods, Jan. 22, 1916." And the association has been active whenever and wherever efforts have been made in state legislatures to enact statutes prohibiting, restricting, or limiting the sale or consumption of corn products, particularly glucose.

It sought by distribution of pamphlets to secure the passage of the Rainey Bill, which repealed the taxes on "mixed flours"—made from corn starch and wheat flour—enacted at the time of the Spanish-American War.

reasons it is impossible to arrange the different types in anything approaching an accurate classification. Two types, however, stand out conspicuously. ① These are the community of interests among business units bound together by an exclusive contract of purchase and sale; and ② secondly, that among concerns bound together by a minority stock ownership. In both types there is strict independence in the actual administration of the separate units embraced in the community of interests, while there may or may not be financial independence. At all events, many of those vitally interested in the success of the one are as much interested in the success of the other.

Community of Interest Based on Purchase and Sale Contract.—A community of interests represented by direct dependence of the units on each other for the purchase and sale of some commodity is relatively common in modern business.[12] It works out in the following manner. A manufacturer of a relatively expensive or relatively complex product requires some semi-fabricated material or some specialized part. He requires this material or this part in large quantities, in regular and dependable deliveries. Yet his own business requires all his time and capital, and is of an absolutely different character. He may make automobiles for which starting and lighting generators are required. Yet the automobile business is absolutely different from the electric business. He may build bridges for which large quantities of steel are required. Yet a successful bridge-builder and a successful steel-maker cannot be combined in the same person. Under these circumstances an agreement is entered into between the two manufacturers under which one agrees to manufacture the product required by the other in such quantities and according to such specifications as may be mutually decided upon, and correlatively the other manufacturer agrees to purchase the product under prearranged conditions of delivery and payment. The buying expenses of one and the selling expenses of the other are saved, and both are relieved of uncertainty regarding future supply and demand. Once the agreement is undertaken, each becomes mutually important to the other; and if the product manufactured by the one and purchased by the other is a relatively highly specialized part, like a generator for an automobile or a governor for a turbine, the two manufacturers might even be said to be necessary to each other. At all events there is a very close community of interests.

---

[12] The case in which all the steps from raw material to finished product are consolidated into a single corporate organization—integration, as it is called—was discussed in Book IV, Chapter III.

In the period of industrial combinations, it was common for businesses dependent upon each other to unite under a common ownership and control. The process was integration. In extreme cases it involved the consolidation into a single corporation of all businesses engaged in all the steps from the production of the raw material to the distribution of the final product among the ultimate consumers. But integration did not prove successful. The manager of the iron mine was not likely to prove an able furnace man; the brewer could not readily become a maltster; the cotton-mill operator could not continue to run his plant and in addition grow cotton and then look after a bleachery and a converting business. Essentially different businesses could not be combined successfully under a single management. Yet there were obvious economies in integration. Since each of the successive or collateral steps in the production of the final product could be made to play into each other, the community of interests idea resulted from an attempt to secure these advantages without involving community of ownership.

During the last two decades it is probable that the automobile industry showed the most conspicuous use of this kind of community of interests among business units. The industry developed very rapidly. It absorbed in its rapid growth very large amounts of capital. Yet investors regarded it as at best uncertain, even precarious, so that automobile manufacturers were forced to secure most of their capital from local banks and from the reinvestment of surplus in the business. As a result, they were forced to limit their scope of operation, and one of the ways in which this was done was to contract with other manufacturers for the purchase of special parts and accessories. The manufacture of automobile parts, such as closed bodies, starting and lighting units, batteries, carburetors, gasoline feed systems—even axles and bearings—has developed into a great industry. It rested on a strict mutuality of interests between the automobile manufacturer on the one hand, and a specialty manufacturer on the other, in which one produces what the other consumes.

Community of Interest Based on Common Ownership of Minority Stock.—Distinctly the commonest form of community of interests, in which individuality and unity of purpose have been successfully combined, is in businesses loosely bound together through the common ownership of minority stock interests. In some instances minority stock ownership in several corporations, all operating in harmony with each other, is held by one or more persons, in some instances by a stock-owning company, and in some instances by mutual stock holdings. In spirit all these forms are the same, namely, devices to secure harmony of operation based on a mutuality of financial interests without in any sense involving actual centralized control or even interdependence.

Obviously the simplest of these forms is the ownership of a substantial minority interest in several corporations by a single individual. Usually it takes the form of interlocking directorates, because if the minority interest is sufficiently large to constitute an actual community of interest, co-operation can be secured only through a voice in the management.[g] This kind of community of interests is found in an industry where there is no other sign of co-ordination, and it is especially common in a manufacturing business made up of many separately owned plants confined to one geographical locality. In a one-industry town, for example, a dozen or more competing plants are engaged in the production of one and only one product, like the jewelry of Attleboro, the chairs of Gardner, or the shell goods of Leominster. In such a case a few prominent manufacturers, men recognized to be the leaders of the industry, will be found to be directors in a number of competing factories. They have small stock holdings in these competing organizations so that their horizon extends to the welfare of the industry as a whole and is not confined to one factory. Through the influence of these men some kind of harmony among all the producers in the town or locality is obtained.[h]

---

[g] Much has been made in propaganda studies of the great, almost illicit, power exerted by banking houses through the system of interlocking directorships. That kind of community of interests, if such exists, is not implied by the analysis given in the text above. The banking "community of interests" and interlocking directorships are intended to secure financial control if any intention at all is implied. Ordinarily there is none. Usually banker representation is sought as a check to extravagance and unsound business policy. Bankers underwrite, or sell to their own customers, the securities of a corporation engaged in a kind of business which reaches out

---

and touches many other kinds of business. Such would be the breadth of scope of any transportation business, a public utility, or a bank. In order to safeguard their own interests and those of their customers a member of the banking house is elected to the board of directors. Later, and for similar reasons, a member of the same banking house is elected to the board of directors of one of the corporations with which the first has intimate dealings. Obviously the banker-director will do nothing to hurt seriously the welfare of either corporation for which, because of the sale of their securities, he has a responsible interest. But to assume that he consciously purposes, or even is able should he wish, to mould the business policy of each so as to create a harmony of interests, is too much of a presumption.

[h] The interlocking directorships and minority stock ownerships in the New England cotton manufacturing industry illustrate these principles. In almost every case at least a majority of the stock of a New England cotton-mill is owned by the directors, their families, and the trustee interests they represent. The interlocking directorships indicate, therefore, interlocking ownership and indirect, but nevertheless highly organized community of interests. For the purpose of gathering statistics the New England cotton industry may be divided into three sections. The first would include the scattered mills of Maine, New Hampshire, and Massachusetts, outside of Bristol County. Most of these mills are operated by local agents, but managed by treasurers and selling agents living in Boston. The particular geographical location of these mills is therefore more an accident of good water power or favorable labor conditions than of the personnel of the ownership. These mills are referred to as the Boston group. The second section is the closely unified district of Fall River, where the mills are owned and operated directly by men living in Fall River. The third section is the equally unified district of New Bedford containing somewhat larger and more costly mills than Fall River with the ownership somewhat more scattered. Statistics refer to 1919.

1. Boston group, 60 mills, all mills of considerable size. For these 60 mills there were 270 directorships filled by 168 different individuals. Of

In no sense can it be said that there is real consolidation of operating plants, but there is a real co-operative unity based on mutual financial interest in each other's welfare and on a mutual understanding of each other's business problems. Yet the management of each part is free and unhampered.

A community of interests is effected through the ownership by a corporation of a substantial minority of the shares in several corporations the businesses of which are somewhat allied. In no sense could it be said that the parent corporation controls the others, nor could one assume a financial interdependence, yet the minority ownership is sufficient to create at least a harmony, if not an explicit community of interests throughout the entire group. Instances are not unusual,

---

these 168 different individuals, 72, or 43 per cent, held directorships in two or more mills. A group of 15 men, mostly partners in commission houses or representatives of old New England textile families, held 88 directorships. The positions for these 168 directorships were as follows:

96	individuals	were	directors	in	one	corporation
30	"	"	"	"	two	corporations
15	"	"	"	"	three	"
12	"	"	"	"	four	"
8	"	"	"	"	five	"
3	"	"	"	"	six	"
2	"	"	"	"	seven	"
2	"	"	"	"	eight	"

For an example of community of interests among these Boston-owned mills through a corporate holding company, observe the Greelock Company, page 809, note 1.

2. Fall River group, 31 mills. For these 31 mills there were 144 directorships filled by 75 different individuals. Of these 75 individuals 35, or 47 per cent, held directorships in two or more mills. A group of 8 men held 41 directorships. The positions of these 75 directorships were as follows:

39	individuals	were	directors	in	one	corporation
20	"	"	"	"	two	corporations
8	"	"	"	"	three	"
3	"	"	"	"	four	"
3	"	"	"	"	five	"
1	individual	was	director	"	six	"
1	"	"	"	"	eight	"

3. New Bedford group, 27 mills. For these 27 mills there were 202 directorships filled by 107 different individuals. Of these 107 different individuals, 46, or 43 per cent, held directorships in two or more mills. A group of 13 men held 58 directorships. The positions of these 107 directorships were as follows:

61	individuals	were	directors	in	one	corporation
16	"	"	"	"	two	corporations
17	"	"	"	"	three	"
8	"	"	"	"	four	"
4	"	"	"	"	five	"
1	individual	was	director	"	six	"

throughout our American finance, of corporations formed for the explicit purpose of owning, ostensibly for investment although actually for the speculative enhancement in market value, large minority interests in corporations engaged in one kind of business. Several such holding companies exist in the public utility field;[13] and they are not unknown among industrials, although the natural competitive instincts of manufacturers in the same line of business, selling in competitive markets, does not tend to encourage mutuality of interests if based only on minority stock holdings. Exactly such a case, however, is to be found among the textile mills.[i]

---

[i] As already pointed out in note (h) the New England textile industry, although never successfully consolidated into large units, has been always subject to a kind of human community of interests through interlocking minority stock ownerships and interlocking directorships. This indirect community of interests, through minority holdings in diverse textile mills, has reached an extreme development in the formation in 1915 of The Greelock Corporation. The name was made out of that of Lockwood, Greene and Company, the firm of mill engineers and operators which was responsible for the formation of the company. This corporation was organized with only $200,000 stock for the purpose of acquiring small interests in a number of textile mills. The capitalization was rapidly increased by the issue of stock and collateral trust notes until, in 1920, the company owned mill stocks to the par value of $10,000,000 having a market value of approximately $15,000,000. Its stock is owned by a dozen men prominent in New England textile circles, it is managed by a firm of well-known mill operators having close relations in a large number of mills and its directors are all very prominent in the industry. Its personnel was, in 1920, very closely allied with the various branches of the textile industry. Two of the directors represented the firm of mill operators just mentioned, two were partners in textile commission houses and directors in several allied mills, including some of those in which the Greelock Corporation was interested, one was an operating official of one of the most important textile machinery corporations in the country, another was a director in eight separate mills, and the other two were influential in the management of the Pacific Mills, the most important of the Greelock Corporation's holdings. The Greelock Corporation now has minority stock ownership in the following textile companies, manufacturing a large variety of cotton fabrics:

Pacific Mills: worsteds and figured cottons, medium counts
Lancaster Mills: ginghams and print goods
Lawton Mills: coarse goods
International Cotton Mills: ducks, drills, low counts
Winnsboro Mills: automobile cord fabrics
Roxbury Carpet Company: carpets

It is quite possible that even here, as elsewhere in the textile industry, consolidation does not presage success. Certain it is that the mills controlled by the Greelock Company did not do well in the period following the war. The Pacific Mills, in particular, did poorly, and this was due

---

[13] See Book IV, Chapter V, pages 780 to 782.

Community of Interest in Foreign Trade Field.—One of the most recent of these corporate community of interests, and one perhaps destined to achieve considerable importance, is found in the field of our rapidly developing foreign trade corporations. As pointed out in another connection these enterprises arose in response to the opening up of new avenues of foreign trade, in consequence of the changes brought about by the Great War. A foreign exporting and importing business, to be successful, must have close affiliations with manufacturing, transporting, and banking companies. In fact its business is primarily that of supplying a service intended to bring about the efficient co-operation of these agencies in foreign commerce. Accordingly, the foreign trade companies, in order to strengthen their position in this country and to fortify their agency business abroad, have sought to secure a community of interests among businesses upon which they are directly dependent. This takes the form of direct stock control in some instances, but such control involves a large investment of capital, whereas the trading company would ordinarily prefer to keep its available capital in its own business. Unless the trading company, therefore, has large resources, or can acquire control of the affiliated business with only a small expenditure, it must content itself with resting its community of interest on the ownership of less than a majority of stock. Great as are the financial resources of the American International Corporation, and strong as is the community of interest among its affiliated companies, its influence in three of the largest and most important of them is assured only through the ownership of distinctly less than a controlling stock interest.[j]

---

largely to the apparent inability of the management to adapt itself quickly to changing merchandising conditions.

[j] The American International Corporation was organized during the latter part of 1915. It owed its origin, in the first instance, to Frank A. Vanderlip, President of the National City Bank of New York City, who sought to create a powerful organization to further the development and extension of foreign trade. Important financial interests were represented on its board of directors, and a capital stock of $50,000,000 was easily secured through subscription. As announced later the business of the company was to follow along five separate and relatively independent lines: (1)

it proposed to establish foreign offices and secure representation in foreign corporations. (2) It proposed to carry on research and investigations in connection with prospective foreign trade and foreign commerce. (3) It proposed to carry on engineering undertakings for government account and for private parties, at home and abroad. (4) It proposed to acquire the control of already existent companies and agencies, and to create others, for carrying on foreign trade. These subsidiaries were to be relatively independent of each other and of the central organization of the American International Corporation. (5) It proposed to make "participations" or investments in the securities of "foreign or domestic corporations doing foreign business" or "corporations whose activities are in accord with the purposes for which the American International Corporation was formed."

Omitting from consideration the first three purposes, it is evident that, under the fourth caption, the American International Corporation proposed to secure absolute control over certain agencies engaged in foreign commerce and, under the fifth caption, a community of interests in others through the acquisition of substantial minority stock interests. Both of these purposes were carried out. The American International Corporation acquired the control of a number of concerns. It bought and reorganized the old-established Pacific Mail Steamship Company, the Allied Machinery Company which with its subsidiaries is engaged in the export of American-made machinery, the Rosin and Turpentine Export Company for the export of naval stores, the Grace American International Company, an affiliation with W. R. Grace and Company for conducting an export business with Russia, Carter Macy and Company, a tea importing house, the International Steel Corporation, to export American steel products, F. W. Horne and Company, an export business trading in the Orient, G. Amsinck and Company, Inc., an export business trading with South America. All these companies represented a relatively small investment and the outright ownership was obtained in every case.

But besides the actual ownership of these smaller enterprises, the American International Corporation secured a substantial minority stock ownership, "participation," as it was called, in three large and well-known companies. Within a few months of the organization of the company the American International Corporation purchased in the open market a large number of the preferred and common shares of the International Mercantile Marine Company, then undergoing reorganization. This company was, and is, the dominant factor in transatlantic shipping. Although the American International probably does not own more than a third of the stock, the community of interests of the two organizations is secure. Later the American International purchased in the open market a substantial, but not controlling, interest in the United Fruit Company, a fruit and sugar development and importing business in Central America and the Caribbean Islands. Later still it purchased a substantial, although by no means a controlling interest in the United States Rubber Company. Through the extensive rubber plantations of this company it is an important factor in the rubber importing trade.

Considerable difficulty was experienced by the management in meeting post-war conditions, especially with those of its subsidiaries which were essentially foreign trading companies. At no time of its career could the company be said to be successful in any sense, although small dividends were paid on its stock until September, 1920. In the latter part of November, 1924, the par value of the stocks were reduced.

According to the published records the company in January, 1926, controlled the Allied Machinery Company of America, Horne Company, G. Amsinck and Company, Inc. The company also owned an interest in the International Mercantile Marine Company, New York Shipbuilding Corporation, United States Rubber Company, Siems-Carey Railway and Canal

Company, International Products Company, Simms Petroleum Company, China Corporation, International Acceptance Bank, Inc., American Balsa Wood Corporation, Welin Davit and Boat Corporation, Ulen and Company, Baker, Kellogg and Company, Inc., Carter, Macy Company, Inc., and Lockwood, Greene and Company, Inc.

a. Gentlemens Agreemen
  1- Price
  2. territory
B. Pools
  1- allotting
  2- Bid
  3 - pay in and take out
C. assokeation
D. Trusts
E. Consolidation
F- association & Holding
  1- District
  2- professional
G- Community of intere
  1. contract of purchase
  2- minority stock owne

ltion
usiness

CHAPTER VII

THE SOURCES OF CAPITAL AND SHORT-TERM BORROWINGS

The previous chapters of this volume dealt with the forms of business organization to be followed by an expanding business. Except incidentally little reference was made to the means available; yet this is a question of great importance. During times of large surplus of investment funds, when the rates on bank loans are low and long-term securities are in great demand, the corporation has merely to justify its policy of expansion by the most superficial analysis in order to get the requisite new capital. But when surplus investment funds are scarce, and banks are restricting rather than expanding loans, the availability of money becomes the crux of any policy of expansion. Under any circumstance, whatever the condition of the general market for capital and the resources of the corporation, the question of the sources of new capital must be fairly faced. To that question this and the succeeding two chapters are devoted.

Reinvestment of Earnings.—The simplest and most evident method of obtaining capital to meet the expenditures of an expanding business is through the reinvestment of surplus earnings. It was pointed out in connection with the disposal of the surplus that the proportion of net earnings retained in the business, rather than paid out in dividends, is entirely a matter of expediency.[1] So that, barring fraud and misrepresentation, the directors may keep for the use of their corporation as much of their earnings as they wish. And their action is, in the end, a reconciliation of two motives—a desire to gratify the stockholders, thereby maintaining the investment credit of the corporation, and a desire to secure additional capital without increasing the liability to the public, thereby strengthening the credit of the corporation with the banks. The particular balance between these two motives will rest, very largely, upon the policy of expansion then being followed by the directors. A static business, having no plans for enlargement, can dispense all its earnings as dividends without seriously affecting its credit. An expanding business cannot. All this was discussed in detail previously, but the matter is of great importance from the point of view of the sources of the capital required for expansion.

---

[1] Book III, Chapter VI.

Three Periods in Life of Corporate Business.—It is illuminating to look at the life history of a corporate enterprise as consisting of three great periods, analogous to the periods under which the physiographer describes the life cycle of land forms. There is a period of youth in the history of every corporation; there is a period of maturity; and there is a period of old age and decay. In a thoroughly typical case the period of youth is the period of growth. But it is growth from within since it is well-nigh impossible to enlist the aid of outside capital in a young, expanding enterprise. Much if not all of the capital required for this growth must therefore be extracted from the business itself, namely from the reinvestment of earnings. And this is conspicuously true if not only the corporation itself, but the industry in which it operates, is young and growing. Neither banks nor investors, neither old women nor speculators, care to assume the double risk of both an undeveloped industry and an untried corporate management. All the funds for expansion must therefore come out of earnings. Gradually as the industry develops and exhibits its inherent earning capacity or as the corporation shows successive years of liberal net earnings, in other words, as it approaches the maturity period of its life cycle, capital may be obtained from banks and investors. But even then the investment credit of a corporation is very much improved if investors feel that the managers of the industry are willing to reinvest at least a part of their annual earnings in the business for which they seek capital from outside sources.

This same principle applies during the period of rehabilitation, analogous to the period of youth, which follows the bankruptcy and reorganization of a corporate property. If an unsuccessful corporation is finally to attain success after its reorganization, it must be allowed a considerable period of rest during which all its surplus earnings are turned back into the property. Only in this way can it re-establish its credit. It was in this way that the great railroads which failed in the middle nineties developed into some of the strongest railroad properties of the country in the decade from 1899 to 1909.[a] In some instances, like those of the Union Pacific and Southern Pacific roads, the reinvestment of earnings in property was hidden from the great majority of the stockholders by heavy betterment expenditures charged to maintenance. On the other hand, roads like the Norfolk and Western in the period of its rehabilitation while under the control of the Pennsylvania Railroad, clearly distinguished between betterments charged to capital and betterments charged to earnings.[b] At all events, whatever the accounting practice followed the money to pay for the rehabilitation came from the reinvestment of the earn-

---

[a] This policy is excellently summarized by a resolution of the Board of Directors of the Union Pacific Railroad, passed while the road was being rehabilitated and strengthened by the investment of earnings during the years succeeding its reorganization.[2]

[b] This differentiation between capital and income is seen from the allocation of the Norfolk and Western Railway's betterment expenditure during the period from 1902 to 1910 (figures are in even thousands).

Year	Expenditure for Additions and Betterments	Amount Charged to Income	Amount Charged to Capital	Percentage Charged to Income
1902	$ 2,889,000	$ 1,439,000	$ 1,450,000	49%
1903	4,419,000	1,712,000	2,707,000	37
1904	3,532,000	604,000	2,928,000	11
1905	5,317,000	3,288,000	2,029,000	62
1906	5,926,000	2,623,000	3,303,000	44
1907	6,110,000	2,194,000	3,916,000	36
1908	8,419,000	2,281,000	6,138,000	27
1909	3,513,000	2,014,000	1,499,000	58
Total	$40,125,000	$16,155,000	$23,970,000	40%

---

[2] Resolution quoted Book III, Chapter VII, page 590.

ings of the corporation rather than from outside sources. And it was this which enabled the roads reorganized in the middle nineties to recover their credit among investors so quickly and so thoroughly.

Expansion by means of the reinvestment of earnings, rather than by the issue of additional securities, is easier for industrial, insurance, and banking companies than for railroads and other public utilities. The rate of turnover of the capital is so much greater, and the proportion of fixed investment to the total gross business so much smaller that the industrial can "finance itself" under ordinary circumstances. This explains why great industrial enterprises like the United States Steel Corporation are able to grow with such rapidity without increasing their bonds and stock appreciably, and why great railroads like the Pennsylvania are forever putting out new issues of securities. It is not so much a difference in fundamental financial policy, as it is a difference in the nature of the business.[3]

Reinvestment of Earnings, the "New England Method."—The expansion of a business through the continuous reinvestment of earnings is regarded by many as "old fashioned." It has been characterized as the "New England method," because, for several generations, New England manufacturers have been wont to establish their undertakings, rebuild their plants, and extend the various ramifications of their businesses solely through the continuous, almost uninterrupted, investment of earnings. Their factories have grown without the addition of outside capital. Much has been written in praise of the fundamental soundness of this method of paying for extensions, and the immunity of enterprises of this character to the shocks incident to industrial depressions and monetary panics. To gain some evidence tending to prove or disprove the advantage to the investor of expansion entirely from within an elaborate comparison of New England textile corporations using this method with others which expanded by seeking outside capital was undertaken.[4] The cotton-mill industry was chosen because a great number of small, well-managed corporations would be found which expanded entirely from the investment of earnings, and a corresponding number of otherwise comparable corporations, in the same industry, which expanded by securing capital from sales of bonds and stocks. The one group represented the "New England method" of finance, the other did not. Admitting that the investor would, probably, receive a larger dividend rate from the second class—for the simple reason that earnings need not be deflected into extensions—it would be expected that the continuous appreciation in market value of the shares of mills using the "New England method" would compensate for the lower dividend rate. At least the appreciation would be greater than that of the shares of the mills which financed extensions of repeated sales of new securities.

---

[3] This difference was already alluded to in connection with the factors controlling the dividend policy of different types of corporations. See Book III, Chapter VI, pages 541 and 542.

These presumptions were not found to be true. Not only did the shares of mills which used outside capital pay, relatively, larger dividends, but they showed a greater appreciation of value. In 1901 the average market price of the mills which sold securities for expansion was 106.8 compared with 128.6 for the "New England type"; in 1922 the former average had risen to 270.5 while the latter had risen only to 218.6. The market price of the shares of the "capital from without" type of mill had more than doubled, that of the "New England type" had less than doubled.

Too much weight, perhaps, should not be placed on the results of this single study. Other conditions may have affected the fortunes of the two groups of mills. Yet the study does undermine the confidence of many of the older executives that a business is sounder and more wisely managed if its managers content themselves with using only the earnings that arise from the business. The businesses which resort to outside capital, while possibly more vulnerable during times of financial distress, are yet able to avail themselves better of rapid changes in demand and supply of their products through the greater mobility of their capital structure. They respond quicker to industrial changes and therefore prosper more in an economic world where resourcefulness counts for more than mere strength.

---

[4] Study of Bosworth, Richard W., Harvard Graduate School of Business Administration (1925).

Temporary Financing.—When capital is obtained from outside sources to meet the cost of extensions, it may be had through the sale of temporary obligations in the form of notes or through that of permanent obligations in the form of long-term bonds or stock. The former is a kind of intermediate step between financing extensions from earnings and from the sale of permanent obligations. But it is fraught with certain inherent limitations and restrictions, the importance of which cannot be over-estimated.

Temporary financing may be based upon two different financial presumptions. ① In one case the directors of the corporation may issue the short-term notes in order to pay for extensions and improvements in structures and other permanent or fixed property on the assumption that the market for bonds will be better when the notes mature than at the time of issue. In other words, short-term notes are issued at a time when improvements must be made, and the bonds needed to meet them cannot be sold on advantageous terms. ② In the other case, the directors may issue short-term notes on the assumption that when the notes mature the property which was bought from the proceeds of their sale can be sold to pay them off. In the former case the issue of notes is admittedly only a temporary substitute for the issue of bonds; in the latter case the issue of notes is a means for temporarily expanding the available capital.

Short-term Notes Issued in Anticipation of Bonds.—The policy of issuing notes in anticipation of the issue of permanent long-term bonds is of comparatively recent origin. Prior to

1900 it was the custom of all large corporations, particularly railroads, to anticipate their capital needs and sell bonds or stocks before the money was actually needed. True, all the railroads that failed about the time of the panic of 1893 had large "floating debts," represented by notes carried by the banks; yet the presence of these notes was the result of lowered credit rather than of conscious forethought.

The good results of some of the early issues of short-term notes proved an evil precedent. During the year ending June 30, 1907, the railroads and large manufacturing companies had had their capacities taxed to the utmost to meet the enormous volume of business that always marks the culmination of an industrial boom. Very heavy expenses for improvements and plant enlargements followed as a consequence. Some of these expenses were paid for by the sale of bonds during 1906 or the early part of 1907. By the middle of the year, however, signs foretelling a financial crisis were clear and interest rates rose steadily. Under such circumstances long-term bonds fell in market value and new bonds could not be sold at anything like the price prevailing during 1906 and the years immediately before. Consequently, many large corporations, particularly street and steam railroads, sold three-year notes at the high rates then prevailing, in the expectation that by 1910 interest rates on long-term obligations would have returned to the levels prevailing before the panic of 1907. It was hoped that in this way a permanent saving in interest could be effected.

Had the railroads stuck firmly to the original intention of refunding their short-term notes in 1910, this expectation of a permanent saving in interest would have proved correct. But the price of bonds had not fallen in 1910 to the levels of the period before 1906 and many railroad officials were deluded into thinking that they had but to wait a little longer and presently bonds could be sold at the previous high prices. Furthermore the short-term note "habit" had been indulged in. Railroad managers found that a new market had been secured for railroad securities among the national and state banks and among those private investors who preferred obligations that matured quickly to long-term bonds. Again, railroads—and even large industrials—which were burdened by issues of prior lien mortgage bonds found that they could sell short-term notes, even though unsecured or inadequately secured. Bankers and investors consented to buy a note with meager security if it matured in one, two, or three years on the assumption that the corporation would remain solvent for a few years at least. These three factors, then, the hope of falling interest rates, the demand for a wider market for corporation securities, and the comparative ease of marketing a poor security, explain the growth of the use of short-term notes in the six or seven years immediately before the Great War.

Investment Quality of Industrial Notes.—A study was undertaken of practically all the industrial notes issued during the decade following the Great War in order to ascertain the comparative advantage and disadvantage of bonds and notes to industrial corporations. This study made a detailed analysis of 853 bond issues and 278 note issues.[5] It was found that the average issuing yield for all notes, that is, debt securities, having a maturity of five years or less, was 7.02 per cent, whereas that of bonds—maturity in excess of five years—was 7.06 per cent. This would indicate that the issuing price in terms of yield of industrial bonds and notes was about the same. But invariably there is a larger gross profit to the banker in bonds so that the net cost of the money to the corporation, considering amortization, must have been greater for the notes.

That the short-term securities, notes, were of poor quality from the investors' point of view is conclusively shown by this study. The average yield in the entire group of 853 industrial bonds at the time of issue was 7.02 per cent. Friedlander made a careful study of all the defaulted issues, apportioning the losses over the entire group of bonds, and showed that the net percentage of loss due to defaults was 1.22 per cent.[c] The net loss on the decline in value from the date of issue to January 1, 1924 for all the undefaulted bonds was .19 per cent. The total subtraction to reduce the gross yield of 7.02 per cent to the net yield, without loss, was 1.41 per cent. So that the net yield on industrial bonds, after deducting compensation for all losses, was 5.80 per cent. Using the same methods of analysis for notes it develops that the total compensation for loss was 3.07 per cent,[d] so that the net yield to the investor for notes was only 3.99 per cent. Thus, besides proving more expensive to the corporation—not to say extremely embarrassing at times—the use of notes has been unfortunate for the investor.

---

[5] Study of Friedlander, A. J., A Statistical Study of Industrial Bonds and Notes Issued from January 1, 1914 to January 1, 1924, Harvard Graduate School of Business Administration (1924). The study covered about 1,500 separate issues; but approximately 200 real estate bonds and nearly 200 others were finally omitted because of inadequate available data. The 853 bonds and 278 notes that were actually used in the compilation covered approximately 800 different corporations representing about five billion dollars, par value, of securities. It is believed that the study is fairly indicative of the conditions and methods of war and post-war bond and note finance.

From every angle the widespread issue of short-term notes has proved to be unfortunate. Interest rates on long-term bonds steadily rose from 1910 to 1920. Consequently the prices at which they could be sold by corporations declined. Banks acquired corporation notes to some extent, and so also did many investors who felt confident that interest rates would continue to rise and wished therefore to place their available funds in quickly maturing obligations. And because of this artificial demand, it cannot be denied for a moment that corporations were able to dispose of poor securities which could not have been sold under other conditions. But this success did not prove of lasting benefit to the issuing corporation because it formed too easy an excuse for the over-extension of unfunded debt.[e] Nor did it prove wholesome for the financial situation as a whole because it led to the accumulation of a large unassimilated mass of notes of anomalous character.

---

[c] The theory of apportioning investment losses over a group of securities and obtaining a net yield, after all losses, for the group, is discussed at length in the last chapters of this work dealing with investments.

[d] 3.21 per cent net loss because of default and .14 per cent net gain because of enhancement of price.

[e] An interesting instance of an attempt to prevent such an accumulation, typified by the unfortunate case of the Missouri, Kansas and Texas Railway described in note (f) below, is suggested by the conditions surrounding the issue, in 1914, of $33,000,000 five-year 5 per cent notes by the Chesapeake and Ohio Railroad. These notes were issued to refund maturing notes

Financing by Short-Term Notes Expensive.—Furthermore, and quite aside from the unfortunate experiences of the last few years, the issue of short-term notes by corporations to pay for permanent improvements has proved expensive. Even had it proved economical because indulged in during a period of falling interest rates, it would have no justification in theory or sound practice. The excuse ordinarily offered is that short-term notes can be issued more profitably when interest rates are high, and long-term bonds when interest rates are low. One financial writer expressed the point of view of the issuing corporation when he said: "They (the railroads) buy long-time credit far in excess of immediate need when money is plenty and short-time credit at higher rates when money is scarce. The New Haven road is especially alert to take advantage of changing interest rates." Such a generalization has little basis in fact, and the selection of the financial administration of the New Haven road as "especially alert" is humorous, if nothing else. But the successful practical application of this rule presumes that corporation officials have a prophetic understanding of the general trend of the money market. The simple fact that interest rates rose steadily from 1910 to 1917, when the entrance of the United States into the Great War made difficult any financing, and that during this period short-term notes were put out in increasing abundance, shows clearly that corporation officials did not have this understanding.[f]

---

originally sold to pay for improvements and extensions which ought to have been paid for by the sale of bonds or stocks. The bankers in underwriting the issue required that the directors agree to spend $2,000,000 during the first year for capital improvements directly out of net earnings—that is, before dividends. During the next two years $3,000,000 a year must be similarly spent, and $4,000,000 each year for the remaining three years that the notes remained outstanding. In other words, the directors obligated themselves to turn back $20,000,000 of net earnings into the railroad property before any dividends should be paid.

[f] Chamberlain, L., The Work of the Bond House, 35.

All this is excellently illustrated by the history of the short-term note issue that proved the proverbial "last straw" on the already overburdened back of the Missouri, Kansas and Texas Railway. In 1910 the railway

Issue of Short-Term Notes Fundamentally Wrong.—But aside from the fact that the use of short-term notes has been expensive, their issue is fundamentally wrong. A quickly maturing note should be given for the purchase of property only when the property is "self-liquidating." This implies that the ultimate sale of the property affords in itself the means of meeting the notes when due.[g] The bridge of a railroad, the new warehouse of a factory, the new turbine of an electric company, will not do this. Given a period of years, the presence of the

---

company required $3,600,000 to purchase the Texas Central, $2,000,000 for terminal improvements in St. Louis, and about $4,000,000 for new equipment and improvements to the main and branch lines. All these expenditures were for capital and all represented permanent improvements to the railway system. But instead of issuing stock or bonds, or else waiting to make the improvements and extensions until stock or bonds could be sold, the road issued $10,000,000 one-year notes maturing August 1, 1911. In 1911 these notes were refunded by an issue of two-year notes, the amount being increased to $12,850,000 and the proceeds of the sale of the additional notes used to pay for certain betterments. In 1912, $3,150,000 additional of these notes were issued to acquire branches and the like; also $1,500,000 one-year notes were issued to pay for the Wichita Falls road. In 1913 the Missouri, Kansas and Texas issued $19,000,000 two-year notes, $17,500,000 to refund the notes falling due and $1,500,000 to pay for betterments. These fell due May 1, 1915. An extension of one year was asked by the road. A few noteholders refused and threatened to file suits. The receivership followed in September.

A writer in a financial periodical made the following comment in June, 1915, when the status of the notes was very low. Hindsight is usually keener in financial space-writers than foresight. "Missouri, Kansas and Texas, and Missouri Pacific have been in a ticklish position, and moreover it will add emphasis to the precarious turn short-time financing takes during periods of hard times and tight money. It is far better to pay a little more interest and have a debt spread over a term of years so that it will not pinch so badly at the wrong time, than to resort to short-term, patchwork finance."[6]

[g] There have been cases where this implication has been used as a means of deceit. During the long period of its history H. B. Claflin and Company had built up an excellent credit with the banks. (See Book IV, Chapter III, note [k].) In order to reach forward to the ultimate consumer the company purchased department stores in all parts of the country. But instead of paying for these stores by means of stock or at least long-term bonds, the Claflin Company used notes issued under questionable circumstances. One of its employees in New York was appointed treasurer of these stores. This treasurer would issue notes drawn for odd sums so that they would have the appearance of actual commercial paper arising through the purchase of salable merchandise. These fictitious notes were then indorsed by H. B. Claflin and Company and sold to banks. The proceeds were used by the Claflin Company to pay for their stores. At each maturity of the notes, others of a similar character were drawn and sold.

---

[6] 24 The Financial World (June 5, 1915).

bridge, the warehouse, the turbine will so increase the earning capacity of the corporation that uses it, that the latter will be able to set aside annually a fund to pay for the structure years hence. This is the justification, and the only justification, for the purchase of fixed equipment through the sale of long-term bonds. But it affords absolutely no justification for the purchase of equipment by the sale of short-term notes.

This whole idea was excellently expressed in an editorial in the *New York Times Annalist,* commenting on the announcement that "The Southern Railway Company, believing in the continued prosperity and growth of the territory it serves, and recognizing the necessity of enlarging its facilities to keep pace with that growth, has, pending the improvement of the market for long-term securities, sold $10,000,000 5 per cent three-year notes, secured by pledge of development and general mortgage 4 per cent bonds of the company, which for some time past have been held in the treasury of the company available for sale. This new capital is to be applied by the Southern Railway Company in carrying through to completion plans for improvements and betterments."

The editorial writer then went on to say: "Many had hoped that the experiences of the New York, New Haven and Hartford and the Boston and Maine with short-term notes, which have an ugly way of coming due at the wrong time, afforded sufficient evidence against the fallacy and danger of that kind of finance. Here is a railroad that cannot sell its treasury bonds, save at a greater immediate sacrifice than it is willing to accept; therefore, it pledges those bonds at 60 under an issue of short-term notes. To use the proceeds of short-term notes in permanent construction is to convert what ought to be liquid capital into what is technically known as fixed capital, and when it comes to funding the notes into long-term obligations, there are more commissions to pay, if nothing worse. Often the notes come due while it is either still or again impossible to sell long-term bonds, and then the notes themselves are resumed."

Distinction Between Self-Liquidating and Fixed Property.—A very important principle of business policy is evidenced by this distinction between self-liquidating and fixed property. It applies to the method of financing all purchases of material required by an expanding business. In general, a business buys two kinds of property as it expands—more raw materials and merchandise to be manufactured or redistributed, and more structures and equipment with which to carry on its enlarged business. The raw materials and merchandise are sold within a comparatively short time, and if the business is sound a profit will be realized through handling them. Obviously the amount and the cost of these merchandise purchases will fluctuate according to the customers' demands for the finished product. Even in a business requiring a very long time for the "conversion" of its material, there will be, necessarily, a fairly accurate correspondence between the amount of the inventories carried and the relative demand for the finished product. During periods of marked demand—business booms—the purchases of raw materials and merchandise will be large. And, conversely, during periods of restricted demand—business depressions—the purchases of raw materials and merchandise will be small. Obviously the shorter the period required for "conversion" or "turning the stock," the quicker will be the response and the more exactly will the amount of the purchases correspond with the amount of the sales. But even in businesses requiring long periods for "conversion" there is a definite and approximately accurate correspondence.

The other kinds of purchases made by an expanding business are structures and equipment. These are not resold. They are incorporated, as soon as acquired, into the fixed and permanent capital of the business. They cannot be contracted during periods of depression. They are definitely and finally permanent. Once having been acquired, the structures and equipment of a business bear no relation whatever to the volume of business, nor do variations in the volume of business react back on the amount and cost of the structures and equipment.

Sound Financing Based on Observance of Distinction.— This distinction is of the utmost importance. That it has been ignored by corporation officials is the explanation of some of the most serious blunders in the financial policy of many large modern corporations. It involves an absolute and ineffaceable distinction between the financing of merchandise for resale and the financing of permanent improvements.

The sale of raw materials in a finished state and the resale of merchandise brings back into the corporation's treasury at least as much and probably more than the raw materials or merchandise cost. This cost may therefore be fully met by the sale of notes on the reasonable assumption that the money with which to pay the notes can be realized from the sale of the finished products. Notes serve, therefore, merely as a means for enabling a corporation to carry a larger stock of raw material, goods in the process of manufacture, or merchandise in the process of being distributed. As the demand for the finished products expands, the raw materials or merchandise that must be purchased expand proportionately; and with the increased stock of goods more money must be tied up in the inventories. This can best be obtained by temporary borrowings. The notes should be arranged to mature at about the time the corporation would reasonably expect to receive payment for the finished goods. This will represent the time required to manufacture and distribute the goods, the average period that finished goods remain in stock before their sale, together with the time ordinarily required to collect the account from the customer. Clearly, each of these three factors will vary with the technique and the customs of the industry, but gross averages, within a single industry, can be determined beforehand with a fair degree of accuracy. The important and vital fact is that the volume of outstanding notes can be made to fluctuate directly with the volume of the inventories. One is the obverse of the other. With the sale of notes, inventories are acquired; with the sale of the inventories the notes are paid.

The purchase of equipment and the construction of buildings and permanent improvements necessarily go on—as surely as increased inventories—during a period of business expansion. But they must be paid for differently. For it will be noted that nothing which was said in the preceding paragraph concerning the intimate connection between inventories and notes applies to the connection between permanent structures and the obligations a corporation might issue to pay for them. Permanent improvements are not resold to liquidate the obligations which paid for them. These obligations can be liquidated only through the increased earnings of the corporation; the increased earnings should be sufficient at least to meet the interest on these obligations and to amortize, by means of a sinking fund, the improvements before they are worn out or become obsolete. If improvements are made wisely the business will show exactly these results, and ultimately this gradually accumulating fund may be used to pay off the obligations incurred in acquiring the improvements. Obviously these obligations must run for many years; they must be represented either by stock or by a funded debt that matures after an interval long enough to allow of sufficient accumulations in the fund to meet the debt. Under no circumstances should an established and expanding business finance its permanent improvements through bank borrowings or short-term notes. Permanent improvements should be paid for from the proceeds of the sale of stock or long-term bonds. The procedure to be followed will be discussed in the immediately succeeding chapters.

Here

CHAPTER VIII

EXPANSION THROUGH THE SALE OF SECURITIES TO BANKERS[1]

Problems to Be Considered.—Permanent improvements must be paid for through the sale of bonds or stocks. It is obvious that notes, of whatever description, should not be used to pay for either such fixed improvements which cannot be turned into money easily, or for those the usefulness of which extends well beyond the maturity of the notes. But the question of whether bonds or stock should be sold to pay for permanent improvements is not so easily answered. If it seems expedient for the corporation to sell bonds, the further questions arise as to whether they should be of short or long maturity and what character of bonds are best suited to the particular circumstances. If on the other hand, it seems expedient to issue stock, it must be decided whether the shares shall be common or preferred. In any case the directors of a corporation seeking capital for expansion must decide whether the new securities shall be sold to independent bankers or to stockholders. To consider these questions aright, it is necessary to appraise first certain general advantages pertaining to each class of security, and apply the principles of such an inquiry to different types of corporations. These principles, too, will affect the question whether the new money shall be obtained through bankers or stockholders.

Advantages of Bonds—Lower Rate.—There are certain specific advantages which the issue of bonds affords, not ordinarily possessed by a new issue of stock. The most apparent is the lower rate at which the new capital for expansions may be secured through bond issues rather than stock issues. Ordinarily the rate that must be paid for new capital is from 1 to 3 per cent less on funded debt than on stock, especially when the stock is not of the nature of a prior lien on unmortgaged tangible property.[a]

---

[1] Book II, Chapters III, VIII and IX, treat of the sale of securities to bankers and the work of the banker in connection with promotion. The observations of this chapter are confined to the sale of securities of established and prosperous companies.

---

[a] The numerous instances in which this is not true will be discussed in the next chapter.

It is somewhat difficult to estimate correctly the selling prices of hypothetical issues, for it seldom happens that both new bonds and new stock are sold at the same time under analogous conditions. Since 1914 the prices of securities have been so affected by the financial conditions arising out of the Great War that a recent comparison is not of general significance.

The subject can be discussed best in the light of a few specific cases. But even with these in view it is very precarious to generalize. The following comparisons are based on average conditions between 1910 and 1914.

1. The first case to be cited is that of a successful public utility electric light company in Texas under the wise and careful supervision of the General Electric Company.

Description	Interest Rate	Price Paid by Bankers	Normal Rate to Company without Amortization
First Mortgage Bonds	5	91½	5.47
Preferred Stock	7	95½	7.33

This company had been, since its inception, unusually successful and the prices cited were realized after this fact had become recognized. At the time the securities were sold, each represented perhaps the best of its class among investment securities. The bankers who handled both issues were of assured strength. The case is therefore indicative of the difference to high-grade successful public utility companies of cost of new capital by sale of bonds and stock. Needless to remark, had there been no bonds, the stock would have sold at a lower net interest rate, but then a direct comparison could not have been made! And, moreover, in the public utility field, the case of a stock with no bonds ahead of it is exceedingly rare outside of Massachusetts, and cases drawn from this state are not representative owing to the tax laws.

2. The second case is that of a successful manufacturing company doing an international business.

Description	Interest Rate	Price Paid by Bankers	Normal Rate to Company not Including Amortization
Debenture Bond (No Lien Superior to it)	5	86	5.80
Common Stock	8	120	6.67

This case is not as good an illustration, as the stock had great "speculative possibilities" and commanded a market among speculators as well as investors. Furthermore the stock was sold to stockholders and the price asked by the company was slightly less than the prevailing open-market quotations. The bonds were sold to bankers. The conditions of sale therefore were not exactly parallel.

One might suggest that the following hypothetical table would probably hold good as an expression of average conditions. The rates are those which the corporation itself is compelled to pay, and are therefore, com-

These figures were compiled for the period just before the Great War. An examination of some 40 issues brought out in 1925 indicates that the percentage yields—omitting from consideration the fluctuations occurring in the meantime—run slightly higher.[b]

Several reasons explain the greater economy of financing expansions through bonds. Obviously the most important is the presumptive fact that a bond security is stronger than a stock, so that the ultimate compensation for the risk which the investor will demand is correspondingly less. But in addition to this is the fact that the market for considerable amounts of bonds of established enterprises is wider than for a large new issue of stock. Consequently the cost of merchandising is less. Furthermore, as there are more wholesale and retail dealers in bonds than in stocks, the corporation would expect to receive a wider range of bids, and therefore a higher price,

---

puted from prices paid by bankers. As stated before, the estimates are made from averages, computed from security issues made during the period from 1910 to 1914. The comparison is between sale of overlying general bonds and preferred or common stocks, each having an established investment position.

	Bonds (Approx.)	Stock (Approx.)
RAILROADS:		
High-grade railroad systems in which the common stocks are sought for investment purposes	4.60%	5.40%
Medium-grade railroad systems in which the preferred stocks are held for investment or the common stocks show a fair margin of earnings	5.10	6.20
(Low-grade railroads have had, unfortunately, no choice, but the sale of bonds.)		
INDUSTRIALS:		
Only high-grade, well-established industrials would be able to sell bonds. In such cases the preferred stocks alone would be of value for comparative purposes, as the value of common stocks would be entirely a matter of speculative expectations	5.40	7.30
PUBLIC UTILITY CORPORATIONS:		
High grade. Both bonds and preferred stocks could be sold to bankers. The geographical position of the company has a great deal of influence in determining the price bankers are willing to pay for its securities. These figures are at best a rough approximation	5.40	6.60
Medium grade	5.80	7.70
Low grade	6.30	7.90

[b] A study of comparative prices at which various grades of bonds were sold in the post-war period was undertaken.[2] The data were drawn from the initial sale, new issues, and from the sale of additional bonds of issues already in the hands of the public. The figures, therefore, are fairly representative. (Expressed in yields to the investor.)

---

[2] Collett, J. P., Issuing Yields of Industrial, Public Utility, and Railroad Bonds, Harvard Graduate School of Business Administration (1926).

b (*Cont'd*)

	Railroad First Mortgages	Railroad Equipment Obligations	Public Utility First Mtge.	Public Utility Debentures	Public Utility Collat. Trust	Industrial First Mtge.	Industrial Collat. Trust	Industrial Convertible Bonds	Industrial Debentures
Number of Issues Considered	39	47	68	36	52	70	37	48	45
1914	4.38	4.73	5.80	.....	.....	5.93	.....	.....	.....
1915	4.65	.....	5.52	.....	.....	5.84	.....	.....	.....
1916	4.96	4.51	5.57	.....	.....	5.42	.....	.....	.....
1917	5.01	.....	5.50	.....	.....	6.00	.....	.....	.....
1918	.....	.....	6.55	7.39	7.08	7.35	.....	.....	.....
1919	.....	.....	6.02	6.57	6.63	6.44	7.03	7.04	6.32
1920	.....	.....	7.31	7.40	7.48	7.73	7.46	7.82	7.30
1921	.....	.....	7.56	7.85	7.63	8.11	7.77	8.18	7.72
1922	5.20	5.31	6.06	6.71	6.58	6.55	7.20	7.37	6.43
1923	5.21	5.38	5.92	6.52	6.27	6.23	6.22	6.60	6.31
1924	5.16	4.96	6.35	6.65	6.25	6.72	6.68	6.73	5.79
1925	5.24	4.92	5.56	6.22	5.97	6.31	6.26	6.16	5.73
Average	4.97	4.97	6.15	6.91	6.74	6.55	6.95	7.13	6.51

for bonds than stock. These considerations will be discussed in detail later.

Continued Control Through Bond Issues.—Aside from economy of issue, bonds would permit a continuation of a concentration of control. Stock would ordinarily be granted voting power, and as the corporation grew in size the new stockholders might very easily outnumber the old. At all events, the continual extension of the voting privilege, as the requirements for new capital grew, would mean at least a weakening of the influence of the old management in the control of the corporation, even though the actual control itself were not jeopardized. Akin to this objection to a large increase of stock is the reluctance of a successful management to open up the business to the inquiry of a constantly growing group of new stockholders. This is particularly true if the old stockholders are few in number and exercise a close control over the management. They resist the natural inclination of the new stockholders to scrutinize the methods and policies of an old-established business. The proprietors might well take the position that it were better to continue their old business within small compass than to extend it through the capital furnished by a group of outsiders possessing a right to interfere with the established order.

Economy in Expense of Distributing Bonds.—Still another advantage to be gained by selling bonds rather than stock is the comparatively large blocks of an issue that can be sold to a single customer, thus reducing considerably, for either the corporation or the bankers, the actual expense of distribution. It is exceedingly difficult to place large amounts of stock except among the directors or their associates, because no man would desire to become a heavy stockholder in a corporation, with its attendant risks, without securing some voice in the management. But life and other insurance companies, banks, trustees of private funds, the treasurers of religious and eleemosynary corporations, stand ready to absorb large amounts of bonds without requiring, at the same time, a voice in the management. Sometimes these sales may be forced upon corporations by directors who are in important administrative positions, as was done by the officers of the various large life insurance companies. Some of these large insurance companies, indeed, have been conspicuously stupid in the administration of their bond investments. Moreover, these large blocks of bonds being once placed will probably be held until their maturity instead of being sold should there be either a pronounced rise or pronounced decline in their market value, provided the decline did not indicate a loss of fundamental security. This latter point is very important, for, at some later time it may be necessary for the corporation to market more bonds of the same issue and the new supply would ordinarily affect the market price of those previously sold. The only way to avoid this depression would be for the corporation or the directors to form a syndicate to absorb from the open market those bonds offered for sale. The chance that large blocks of the old issue would be forced into the market might prevent the directors or bankers from entering the syndicate; but if it were known that a large proportion of the old issue was securely locked up in large trust funds, then the syndicate could be formed to maintain the general market for the bonds at a much lower expense to the issuing corporation.

Corporations Able to Issue Bonds.—The advantages just noted pertaining to the sale of bonds rather than stock apply only to types of corporations possessing a real alternative. There are many types of corporations which cannot wisely issue bonds and are confined in all their financial operations to stock issues. Such corporations include banks, insurance companies, and manufacturing companies situated in states which discriminate in their tax laws against investments in bonds. Other corporate enterprises, such as mines, patented inventions, retail stores, and the like, would wisely do all their financing by means of stocks, although there are no laws that prohibit the issue of bonds, were it possible to sell them. For other types of business corporations, including manufacturing enterprises, railroads, and public utility companies generally, there is no fundamental legal or economic reason that determines whether a corporation shall issue stock or bonds in order to meet the capital costs of an expanding business. In such cases it is essential to gauge carefully the relative advantages of an issue of new stock, as compared with an issue of new bonds, for in the end the whole question resolves itself into one of practical financial expediency.

Advantages of Stock Issues.—The payment of the greater costs of the expansion of a corporation by means of the sale of new stock issues has certain very positive advantages over expansion by means of bonds. The greatest of these is that stock carries no legally enforceable promise of the payment of an annual charge. And new stockholders are quite as much partners in the enterprise as the old stockholders, and assume quite as much risk. Payment of interest on a bond is fixed, and if not paid when due, failure is precipitated. Most corporation directors, no matter how successful the enterprise may be, hesitate to burden it with fixed charges, even if the future gives promise of earnings that exceed the charges many times over. And even in those instances when there seems no reasonable doubt but that the new money obtained from the sale of bonds will be invested so as to earn immediately, through new or improved equipment, more than sufficient to pay the charges, there is no assurance that this increased earning capacity will continue throughout the life of the bonds. A decrease of the net earnings of a corporation might occur at any time, owing to conditions beyond the control of the corporation's management, and this decrease in net earnings might jeopardize the solvency of the corporation through the enforced payment of interest. To avoid this possibility, however remote, the corporation's directors prefer to assume the extra cost which the sale of stock, rather than bonds, involves.

In addition to this matter of general policy, there is a special reason why an expanding business should not pay for its capital extensions by the issue of bonds—the effect on the general credit. At no time in the company's history do the credit man and the bankers watch a company's general credit more carefully than when a small business is expanding into a large one. The old-established lines of credit must be increased; the limit of bank loans must be raised. Otherwise the business cannot carry its enlarged inventories and accounts receivable. Just at this critical time the issue of bonds to meet the increases in the plant account would hurt, distinctly, the public credit. The bankers and merchandise creditors would naturally assume that the policy was prompted by one of several reasons: either the directors had not enough financial backing among the stockholders to secure new money from the sale of stock, or themselves lacked confidence in the enterprise, preferring to risk other people's money rather than their own, or else that they proposed to follow a different and more audacious plan of financing, the success, even the expediency, of which could not be foretold from the past. Any one of these inferences would destroy the general credit of the expanding corporation, irrespective of the margin of current assets over current liabilities. On the other hand, if the directors sell to the public an issue of stock the proceeds of which are used to extend the plant, to pay off maturing loans, and to increase the excess of current assets over current liabilities, the power of the corporation to sell its notes and acceptances will be enormously increased. From the bankers' point of view their equity has been increased by the full extent of the new capital brought into the business.

Cred

These principles do not apply with equal force to all types of corporate enterprises. They have the greatest strength for industrials and the least for local utilities. An industrial must borrow heavily at banks in order to carry its inventories and receivables. Its earnings are not easily predicted, nor can it fortify itself against sudden changes in the demand for its product, against labor disturbances and against unusual stupidity in management. These unpredictable elements are less in evidence in a local utility, although even here too much confidence cannot be placed in the assurance of increased earning power in which both the public utility company operators and the bond buyers place their trust. During the entire period of the Great War, the class of enterprises that suffered most was the various groups of public utilities. Many reduced their dividends; some defaulted on their bonds and passed into the hands of receivers. Had many of these enterprises financed their extensions by means of the sale of stock, rather than bonds, in the decade from 1904 to 1914, they could have passed through the critical period of the Great War with their credit untarnished.

The fact that a stock issue carries no direct obligation to meet fixed and unalterable charges is its greatest advantage over bonds for every type of enterprise. But there are other lesser advantages which are frequently of considerable moment in leading directors to decide to issue stock in order to pay for plant extensions. The better borrowing facilities at banks has been mentioned already. There is a greater flexibility in the purchase and sale of real estate if there is no blanket mortgage on the property. There is a better investment market for stocks among those investors residing in certain states which tax bonds but not stocks; and the federal income taxes for small investors are paid directly by the corporation. It is interesting to note also that small investors are, as a rule, unfamiliar with bonds, so that a corporation can secure a much wider market among small investors through the sale of stock than it can through bonds.

Advantages of Sale Through Bankers.—In all probability the decision of the directors of a corporation as to whether they shall pay for extensions by the issue of bonds or of stock cannot be made without taking into consideration the means to be employed in selling the new securities. Two distinct means are available. The corporation directors may either sell the entire issue directly to bankers or they may offer the securities to the stockholders in the proportion of stock holdings. The advantages of the sale of the new securities to bankers is considered in this chapter. The succeeding chapter treats of the conditions surrounding a successful sale of new securities directly to a corporation's own stockholders.

Perhaps the foremost advantage of the sale of the entire issue of new securities to investment bankers is the assurance of a successful sale. Ordinarily the management of a corporation spends money for improvements before the money is actually in hand. A floating debt is incurred which it is proposed to fund by means of the money obtained from the sale of the new securities. Ordinarily, too, the payment of the bank loans representing these floating debts must be met in the immediate future; and the improvements themselves must be carried through once they are commenced. It is therefore imperative that the corporation obtain the money its plans call for; these cannot depend on the temporary fancy of stockholders nor be jeopardized by the kaleidoscopic changes of the financial markets. Generally, therefore, the corporation is very glad to allow the bankers to assume these risks, even though a slightly less price is realized than if the bonds or stock were sold directly to the final investors. It is this assurance of the immediate payment of money that most often leads to the acceptance of the definite offer from the bankers, the more conservative of the directors preferring to run no risks of being caught in the meshes of an unfavorable credit market.[c]

---

[c] Corporations must use great care that bankers do not set aside contracts already implicitly understood, if not legally completed. Too often a banker will postpone a legally binding contract until unimportant details are arranged. And if, in the meantime, general financial conditions change, the banker will find some excuse for refusing to fulfil his part of the agreement.

While the relationship between investment bankers and the corporations for which they have once sold securities may not require the bankers to underwrite every issue that the corporation may thereafter bring out, still the fact that the bankers have once investigated the enterprise and decided to lend their support in financing it, implies a willingness to assume at least a favorable attitude toward future issues of securities. In fact, it is one of the unwritten laws of investment banking that when a banker has once established intimate association with a corporation he shall have at least the first opportunity of bringing out subsequent issues. Sometimes this closeness of connection works greatly to the advantage of the corporations,[d] as it protects them during periods of financial stress, when capital is difficult to obtain at any price, from being handicapped in financing improvements or in refunding old issues of securities. For it is clear that if bankers have been responsible for the wide distribution of a company's securities in the past, they will acknowledge an obligation to protect the company in an emergency so that the value of the securities already sold shall not be jeopardized. Corporations have, in several important instances, actually passed into the hands of receivers, for the reason that their managers had, in the past, failed to effect a strong alliance with investment bankers.

---

[d] During 1912, a banking syndicate, headed by the joint management of two prominent banking houses, one in Boston and the other in Chicago, underwrote a considerable issue of bonds of an electric lighting company in the Middle West. The price paid by the syndicate was 92½ and the price at which the syndicate disposed of its bonds to the public was 97. During the summer of 1913, owing to the conditions in the bond market, the price of these securities fell to 93. In the autumn of 1913, when the market price ranged between 93 and 94, the electric lighting company desired to sell some more bonds of the same issue, in order to pay for extensions. The bankers, owing to the changed conditions of the money market, were unwilling to pay 92½ for the second issue. Instead they offered the company only 85 per cent, but objected strongly to allowing other bankers to bid on the issue. They feared that, should other bankers secure the issue at a low price compared with that of the bonds they had already purchased and sold to investors, they could not successfully support the market for their old customers. That is, in order to prevent loss and to insure stability for those of their customers who had already bought bonds of them, they were unwilling to permit other bankers to deal in the issue. Under these circumstances the president of the company, being a man of considerable wealth, refused the offer with the statement that he would take the bonds himself and hold them until the general bond market was in a condition to absorb them. In order to protect their clients, the bankers were compelled to pay the old price of 92½, although they immediately advertised the bonds for 94½. Taking into consideration the expenses involved in the distribution, this second purchase resulted in a loss to them.

Bankers as a Factor in Widening Market for Securities. —Expansion through the sale of securities to bankers widens the market for the company's securities in a manner not possible through the sale of either bonds or stock to the old stockholders, and the wider the market for the company's securities, the more secure it is in the control over new capital. This is a very important element in the growth of large businesses. It is quite frequently neglected by corporation officials who, finding themselves able to provide amply for the immediate future, forget the necessity of providing for the remote future. Small additions of capital may be obtained from time to time from the old stockholders, but ordinarily large increases of capital must be sought in the general investment market.

A failure to acknowledge this principle was one of the early difficulties with the financing of the American Telephone and Telegraph Company. Finding it comparatively easy to sell large blocks of stock directly to stockholders, the directors resorted to this method of expansion continuously, during all the earlier years of the company's growth, while the Bell Telephone system was being extended throughout the United States. Meanwhile, the individual stock holdings, although growing in size, were being concentrated in one geographical area, where the early stockholders resided. But the demands for expansion grew faster than the savings capacity of the stockholders, or rather than that portion of their savings which they cared to invest in telephone securities. As a result, the management experienced a constantly growing difficulty in finding a fair market for the new stock allotments as they were successively issued. This destroyed the real market for the stock of the American Telephone and Telegraph Company, and reduced its market price below its true value, with respect to other securities of equal intrinsic value, but possessing a wider market. In 1906 a new management, realizing that the fundamental financial difficulty of the telephone industry was its continual requirements for new capital, sought to extend the market for its shares from Boston to New York in the hope of securing a national, and later an international, market for its securities. The effort was partially successful, although it did not occur early enough to give the company the nation-wide investment interest that its enormous expansion of the succeeding ten years required. What has proved true to a large extent with the telephone company has been shown to a lesser degree by the Pennsylvania Railroad. The railroad has relied for the finding of enormous amounts of capital upon its own stockholders, a large proportion of whom resided in Pennsylvania. Many of them were not always inclined, or financially able, to take up each allotment of new stock as it was offered by the railroad. In consequence large amounts of stock were thrown on the market at the time of each stock offering.[e]

When expansions are financed by the sale of bonds to bankers, this intensive narrowing of the market for the corporations' securities does not result. Bankers sell bonds and stocks by the sheer strength of their ability as salesmen and their command of the confidence of investors; their power to

---

[e] The parallelism between the American Telephone and Telegraph Company and the Pennsylvania Railroad in these matters is very striking. Both, perhaps, more than any other two large American corporations, have relied on their own stockholders for securing new capital. In both cases the general conditions were remarkably well suited to successful sales of stock to stockholders.[3] And furthermore, the entire stockholdings during the early years of the expansion of the two companies were confined to a limited and narrow geographical section—Massachusetts for the American Telephone and Telegraph Company and Pennsylvania for the Pennsylvania Railroad. True, at a later period both companies sought wide geographical markets for their securities—even invaded the hallowed precincts of France—yet both companies have always suffered from what one might call their provincialism. And this provincialism has been accentuated by the constantly recurring inclination on the part of both corporations to secure the funds necessary for extensions from stockholders' subscriptions.

---

[3] See Book IV, Chapter IX for discussion of these conditions.

market securities has nothing to do with the extent of the knowledge of stockholders and their loyalty for their corporation. The bankers will organize a temporary syndicate[4] for the sole purpose of distributing the issue. The members of this syndicate will vary from time to time, so that one issue of securities may be marketed by very different persons from those who handled the previous issues, even though the banking house through which the sale was effected remains the same in all cases. Moreover, in any case, the bankers who are brought together to help sell the bonds may have been chosen by the manager of the syndicate in order that the new securities may be taken into sections of the country where investors have never before been offered the securities of the particular corporation.

If, by way of illustration, the majority of the stockholders, and even the bondholders, of a certain hydro-electric company live in the region of the development—say, in western New York State—a new issue of stock or bonds cannot be sold in the same region, because the local investors already hold enough of the securities. Under these circumstances an investment banker in Philadelphia might very well buy the issue. He might sell most of the new bonds to Pennsylvania Dutchmen and the remainder, through his connection in Boston, to Aroostook farmers. By no amount of effort could the hydro-electric company itself have reached either class, yet the result is easily attained by the distributing organization of bankers. Were the issue very large, like the Interborough Rapid Transit Company 5 per cent bonds, distributed in 1913 by J. P. Morgan and Company and assisted by banks and bankers throughout the country, the actual sales in all parts of the United States, and to a limited extent in foreign countries, would be proportional to the investing capacity of each geographical region. In brief, the distribution of securities through bankers can be made as wide as the conditions require. In no respect is it confined to the locality in which the company operates, or to that in which the old stockholders reside.

---

[4] For further discussion of the underwriting syndicate, which includes syndicates for securities of established, as well as recently promoted companies, see Book II, Chapter VIII.

Relative Economy of Financing Through Bankers.—Another advantage, particularly to the issuing corporation of an established reputation, is the simple fact that there are a great many different investment bankers and competition among them enables the corporation to obtain the highest price for its new securities which the general investment market permits. The business of selling securities is a highly competitive one; yet the profits of the business, if managed ably, are very large. Bankers long ago recognized that it is far better policy to purchase the issues of old, long-established, and profitable companies, even though their gross profit on each sale is small, than the issues of new corporations where the chance of a mistake in judgment is greater, and therefore the risk to their reputation is a matter of serious consideration. So it is not, with a successful corporation, a difficult problem to find a banker; the obstacle usually met with is that of inducing the banker to sell the issue on a narrow margin of profit.

In these negotiations, the corporation is fortified by the knowledge that another banker stands ready to consider the purchase of the issue, if the first one proves too obdurate. As a result, the margin between the price received by an old-established corporation for an issue of well-secured bonds and the price paid by the public investors is sometimes surprisingly narrow. For example, the New England Telephone and Telegraph sold in 1912 an issue of $10,000,000 5 per cent debenture bonds. The bankers received only one-half of 1 per cent commission. This was an exceptionally low margin. Little advertising on the part of the bankers was necessary, and the bonds were sold within a few hours of the opening of the subscription books. It is true that few large bond sales can be completed on as cheap a basis as this, but ordinarily the cost to an old-established corporation with assured earning power did not exceed 2½ per cent of the amount actually paid by the public purchasers in the period before the Great War.

Since 1915, however, the bankers' commissions, or their margin of profit, have grown steadily larger. With the increasing difficulty experienced in placing securities, as a result of the world-wide scarcity of capital, bankers possessing an assured distributing capacity have been in a strategic position as compared with corporations facing the necessity of selling bonds. While the highest grade bonds issued by corporations with very high credit were sought after by bankers to a limited extent, the commissions they demanded were often larger than what they obtained for the sale of medium and low-grade bonds before the war. In some too frequent cases the corporation has had its hands tied by the influence on the board of directors of some prominent banking house which secures the new issue under conditions which prohibit competitive bidding. Without for the moment underestimating the value to any corporation of the constant assistance and advice, not to speak of the financial support, of prominent bankers, it is necessary to acknowledge that no man may act as buyer for himself and seller for the stockholders, for whom, as director, he is trustee. It may be true that the banker is indirectly paid for innumerable services, not specifically accounted for, by the low price at which he is able to buy the bonds. But he is truer to the principles of his trusteeship if he insists on paying the full competitive price for the bonds, and then requires of the corporation specific payment for specific services rendered.

Exchange of Securities Through Banker.—One of the greatest helps at the command of the investment banker in the distribution of securities is the custom of exchange. The banker will take back securities, in which there is then no particular activity, nor any noticeable oversupply, in exchange for the new securities which he has just purchased from the corporation. A company selling its own stock—or even its bonds for that matter—cannot do this. It is true the stockholder might himself sell other securities or even sell back bonds to the investment banker in order to provide himself with funds to subscribe to the new stock, but experience has shown that he will not do this. Instead, if he has no ready money he will sell his privilege to subscribe to the corporation's new stock, provided it has a market value; otherwise he will allow it to lapse. There can be no pressure nor even persuasion exerted upon him. There are no silvery-tongued bond salesmen to propound elaborate schemes of exchange which show, on paper, a nominal profit to the investor. Just such tricks of salesmanship can be enlisted if the bonds are taken by the investment banker, who, temporarily at least, is compelled to force the new issue into the vaults of investors. Quite often the bid price of seasoned bonds rises somewhat after their issue, so that even when the banker is forced to take back some bonds he has previously sold at approximately the same price paid for them by the investor, he can ordinarily resell these so that the entire transaction will show him a slight net profit. Moreover, it generally happens that some of the bonds taken back in exchange for the bonds of the new issue are listed securities, upon which the banker can realize money immediately. As everyone familiar with the situation knows, the volume of listed stock exchange securities which the investment bankers dump on the market as a result of forcing their own unlisted bonds into the strong-boxes of investors, reaches enormous proportions.

Growing Use of Stocks.—Prior to the Great War it was the common custom for successful, expanding corporations to sell bonds to bankers and stock to their own stockholders. But since the beginning of the Great War this sequence has ceased to have much of its old significance. Bankers are now increasingly employed to distribute preferred and common shares for the purpose of financing extensions, and they are forgetting much of their old-time insistence that the securities they distribute to investors shall have the strength and stability of bonds. Several causes are accountable for this change—none of them very creditable to the intelligence or the ethics and responsibility of the bankers.

The first of the causes of the shift of bankers' purchases from bonds to stocks is the demand of what might be called the new investors for large income return. This class includes men who, because of abnormally high wages or inordinate profits during and following the Great War, have money for investment for the first time. They are ignorant of the distinction between stock and bond, and the legal and economic barriers that separate the partner from the creditor of a business enterprise. They are therefore easily deluded into buying preferred stocks of industrial enterprises because of their greater apparent yield. Then, too, this same argument appeals strongly to the more conservative investors of the community who find that the rising level of commodity prices renders it necessary to obtain a higher net return on their investments. Present necessities color and befog their judgments of the permanent and intrinsic values of securities.

Another and perhaps more important explanation of the increased offerings by bankers of preferred stocks is the great prosperity of manufacturing establishments since the opening of the Great War, as compared with the railroad, local public utility, and traction industries. In fact, the effect of the abnormal demand for merchandise of all descriptions has been to bring prosperity to industrial enterprises and depression to public utilities. Industrials could raise the prices of their products in accordance with their increased costs; utilities had their rates held down by commissions, yet were forced to pay increasing prices for labor and materials. Consequently the profits in industrial enterprises were very large, those in public utility enterprises very small. In many cases they disappeared altogether and receivers assumed the administration of utilities which, until the period of the Great War, were fairly prosperous. In consequence, the market value of the securities of public utilities—even underlying first mortgage bonds—registered conspicuous declines, whereas the market values of industrial enterprises—especially common stocks—registered conspicuous advances. These were matters of common observation. Bonds had never been issued by industrials, so that if investors would participate in their apparent prosperity they must purchase their stocks. In consequence bankers showed no hesitancy in directing the attention of their customers to the advantages of stocks, and the customers fell easily into believing these advantages sound and permanent.

But probably the deepest reason for this change was a change in the attitude of the bankers themselves. Their judgment became befogged by the lure of the long profit. The bankers' margin of gross profit on stocks, both preferred and common, has always been higher than that on bonds. In addition to the merchandising profit on the preferred stock, there is usually a surreptitious bonus of common stock. And such was the scarcity of capital, and such the necessities of corporations, that bankers could obtain profits on these industrial stocks all out of proportion to the customary profits on the purchase and sale of bonds. The increased cost of doing business has affected investment bankers quite as much as other business men. They found themselves deluded by the fictitious industrial prosperity resulting from the Great War, and succumbed to the narrow expediency of a large, immediate, but temporary profit. As a result, old-established, conservative bankers, who had confined their purchases to municipal and high-grade corporation bonds, rushed to the opposite extreme and purchased low-grade industrial stocks.

200 5000

450

CHAPTER IX

2,000

PRIVILEGED SUBSCRIPTIONS

Definition and Application of Term.—"Privileged subscription" is the term used to refer to the offer by a corporation to sell a new security, usually a stock, to its stockholders for less than the current market value. It is only by the special inducement of a low price that a corporation can be sure of securing capital from its own stockholders, for the loyalty of the great body of stockholders to their corporation does not extend to making pecuniary sacrifices; there must be the compulsion of apparent immediate self-interest.

The statement that privileged subscriptions refer usually to stocks should not lead to the assumption that bonds are never offered to stockholders at prices recognizably below the market level. The Detroit Edison Company, for example, alternated between the two—first a privileged stock issue, then a privileged debenture bond issue. In 1910 the American Gas Company offered stockholders the right to subscribe to either new stock or convertible debenture bonds. All things considered, however, privileged subscriptions to bond issues are relatively uncommon, and throughout the present chapter such cases will, for the most part, be ignored.

Practical Tests of Success—Price of New Stock.—In order that an issue of stock may be successfully sold to stockholders, the corporation must meet at least three essentially different conditions. These conditions, it should be noted, are of the utmost importance because they define a set of practical tests to determine whether or not, in a given case, a sale of stock to stockholders is likely to be successful.

Most important of all is the price at which the old stock is selling at the time the new is offered. In order that the stock may be taken by the old stockholders, the market price of the outstanding stock must be well above the price at which the new stock is offered. Ordinarily the new stock is offered at par, because few corporations are willing to fix a price on their own stock at less than par. Furthermore, the laws of most states prohibit the sale of stock of a corporation by itself at less than par, although in some instances a state commission has authorized a public utility corporation to offer its stock at less than par.[1] Unless, therefore, the market price of the old stock is above par, stockholders will not take the new. On the other hand, if the corporation is very successful and its shares are valued highly by investors it may be sure that an offering to its stockholders will be highly prized, and that the "rights," so-called, which enable the stockholder to buy the stock, at less than its customary market value, will command a liberal price on the open market.

A good example of the very high prices realized for these rights is afforded by the history of the Travelers Insurance Company of Hartford, Connecticut:

Capital at Commencement of Business, 1864	$ 400,000
Increased in 1865 to	500,000
Increased in 1875 to	600,000
Increased in 1892 to	1,000,000

The above three increases were made from the company's surplus. Further increases took place as follows:

In 1908 to With rights selling at about $400.	$ 2,000,000
In 1910 to With rights selling at about $200.	2,500,000
In 1913 to With rights selling at about $550.	5,000,000
In 1916 to With rights selling at about $120.	6,000,000
In 1920 to With rights selling at about $115.	7,500,000
In 1923 to With rights selling at about $150.	10,000,000

---

[1] See note (c).

In 1925 to	12,000,000
With rights selling at about $230.	
In 1926 to	15,000,000
With rights selling at about $280.	

It sometimes happens that at a time of emergency a corporation may force its stockholders to subscribe to new stock at a price considerably higher than the market. This is illustrated by the conditions of the last failure of the Westinghouse Electric and Manufacturing Company. In order to provide new working capital it was proposed by a committee of merchandise creditors that the old stockholders should subscribe to new common stock. The stock had, when the plan was first announced, a market value of approximately $30 a share (par $50), yet the committee undertook to force all the stockholders to buy the new stock at its par value of $50 on the plea that new money was imperative in order to save the business from liquidation. In all, $2,400,000 was subscribed in this way, in spite of the depression following the crisis of 1907. It should be added, however, that such cases are very rare, as the ordinary stockholder is impelled by very slight motives of loyalty to his corporation.

Nevertheless it is sometimes possible to employ a subterfuge in order to make the offering of new stock appear attractive to the old stockholders. For example, in April, 1913, the American Type Founders' Company wished to sell some preferred stock to its stockholders at par, notwithstanding the fact that the market value of the preferred could not be considered to be above 95 per cent. To meet this condition the directors declared a dividend of 8 per cent in scrip, which could be used for the partial payment of the new stock. In this way the price actually paid by the stockholders in money was about the same as the market value of the old stock; yet the corporation could pretend, in the legal provisions of its stock issue and in its books of account, that the full par value was paid by the subscribing stockholders. Carefully drawn restrictions prevented a stockholder from using the scrip as a stock dividend and thereby getting the new stock without the full money payment of $92 a share.

A fairly common means of accomplishing this end, with less apparent deception, is for the corporation to offer bonds to its shareholders which are convertible into stock at a price less than the stock's par value. It has been done indirectly, by the sale to the stockholders of convertible bonds at less than par, or the permission to convert them into stock at a more liberal basis than one share of stock for $100 in bonds. The Erie Railroad sold its Convertible 4s, Series D, Bonds to the stockholders at 85. Each bond was convertible into stock taken at $50 per share. Should such a conversion occur, the company would have sold its new stock for $42.50 a share. In all such cases, however, a security superior to the common stock must be offered. So that it may be laid down as a general principle that unless the market value of the common stock is greater than its par value, there can be no successful sale of the common stock to stockholders.[a]

Wide Distribution of Old Stock Desirable.—The second requirement of a successful sale of new stock to stockholders is that the old stock shall be widely held by stockholders. This is much more important than would appear at first sight, for it might be presumed that the size of a man's holdings would have little to do with either his willingness or his capacity to take up his allotted stock. Yet the mere fact that the corporation has a very large number of shareholders, increases the possibility of a successful sale, because the failure of a few to buy their proportional shares does not jeopardize the whole subscription. Nor is it correct to assume that the size of a man's holdings is immaterial to his capacity to acquire new stock. In order that the stock offering may prove a success each old stockholder must take up his allotted number of shares. If he cannot or will not do this he will throw his "rights" to subscribe to the new stock upon the market. In consequence, the abnormal supply of these "rights" will force down the market price for them and the price of the full shares will decline correspondingly. It may decline so low that no stockholder will subscribe and the new subscription prove a failure.

---

[a] Privileged subscriptions at less than par are, however, not unheard of. For example, in 1911 the Western Maryland Railroad offered new stock (par $100) to its old stockholders at $50 a share.

It is an interesting commentary on the business intelligence of many stockholders that there are always a certain number of rights that go by default in every large stock subscription, even when these rights command a substantial premium during the entire subscription period. In 1910 the West End Street Railroad offered its stock (par $50) for $75 a share. During the subscription period the market price did not fall below $84 a share and the rights commanded a substantial market price. Yet 1,049 out of 27,800 shares were not subscribed for. In every one of the large privileged subscriptions of the American Telephone and Telegraph Company there were always a certain number of the stockholders who neither subscribed nor sold their rights. It has been reported that stockholders have misinterpreted the subscription warrants for assessments and thrown them into the wastebasket.

Large stock holdings with slight general distribution are inimical to the success of the offering, because the proportion of "rights" that will be thrown on the market will almost surely be greater than if the old stock were widely distributed in small lots.[b] Most investors believe in a very considerable diversification of their stock holdings, and this diversification is made without regard to the sale of stock by the corporation. When, therefore, the new stock is offered for subscription, the large stockholders will conclude that the comparatively heavy increase in their holdings of this particular security is contrary to some preconceived plan of distribution. At least some of the large stockholders will conclude that it is wise to sell such a portion of their "rights" as will enable them to meet their subscription on a few shares without increasing the actual money investment—in other words, change the privileged subscription to a large number of shares into a stock dividend of a few.

---

[b] To avoid this, an agreement is sometimes effected among the largest stockholders—commonly the directors—that they will subscribe to their allotments, whatsoever the hazards of the market. This was done in one of the subscriptions to the preferred stock of the United States Rubber Company.

The small stockholder, on the contrary, will seldom be influenced by theories of the proper diversification of his investment holdings but will base his decision as to whether he will subscribe to the stock or sell his rights solely on the availability of sufficient funds. Since his new subscription will call at most for only a few hundred dollars, with the payments, probably, distributed over a period of time, he will accept the new stock offering without further thought. And if he belongs, as probably he does, to what might be called the class of small but thrifty savers, he will welcome the chance of buying stock "at less than it is worth" on "the instalment plan."

Furthermore, the small stockholder will create a market demand for the "rights" offered for sale by large stockholders. Being a small stockholder he will probably require additional "rights" with which to even up his own holdings. And even though he does not himself enter the market in order to purchase "rights," he will be instrumental in drawing the attention of many outsiders to the apparent success of his corporation. Others will realize that by buying the rights offered and personally subscribing to the new stock, a valuable investment will be obtained at a relatively low cost. This will create a demand from outside investors for the rights which, if the financial conditions of the corporation be sound, may entirely counterbalance the pressure of other stockholders to sell their rights.

Proper Use of New Capital.—The third condition essential to a successful sale of new stock to the old stockholders is that the directors of the corporation shall fully justify the extensions to be made with the new capital.[c] This requires that the directors shall take the stockholders into their confidence with the utmost frankness.[d] The reasons for coming to the old stockholders for further increases in their investment must be clear cut and thoroughly sound. The stockholders must be convinced that the prospective earnings on the new capital are fully adequate, not only to pay dividends on the new stock, but also to increase the margin of safety of the dividends on the old. Unless it is made perfectly clear to the stockholder, without much investigation on his part, that the expansion requiring the new capital is wise and expedient, he will not co-operate.

An excellent example of frankness on the part of a corporation toward its stockholders is afforded by the circular of the New York Central Railroad Company offering them the privilege of subscribing to its 6 per cent Convertible Debentures of 1935. The whole circular is a model of the kind. After stating in brief the conditions of subscription, the circular states, in part:

> The proceeds of the sale of the bonds will be used to fund an equal amount of the company's now unfunded debt which has been incurred for the betterment and extension of its railroads, and in the acquisition of property.

---

[c] There have been exceptions to this rule. The directors of the New York, New Haven and Hartford Railroad, during the period of its notorious over-expansion, had only to "ring the bell" (to use a Wall Street phrase), when the stockholders would rush forward with subscriptions to any amount the management might ask for.

[d] An excellent example of the evil results of not doing this is afforded by the experience of the Walpole Rubber Company in 1913. This corporation, formed from the merger of certain factories engaged in the manufacture of rubber goods—automobile tires, rubber heels, hot-water bottles, etc.—was unquestionably a success, if the steady increase in its gross earnings were the single criterion of success. On the basis of this success the company issued 7 per cent preferred stock. This was widely distributed among Massachusetts investors, largely because of its non-taxable character. The rubber business is of such a character that long-time mercantile credits appear to be the rule. In the stress of the summer of 1913 the company was unable to secure sufficient capital from the banks, and accordingly offered short-term notes to its stockholders; but in the meantime suspicion had arisen regarding the conservatism and the wisdom of the managers, and the stockholders refused to subscribe to the notes. As a result the corporation passed into the hands of receivers.

The convertible bonds will carry an interest charge substantially the same as that heretofore paid on the notes to be funded.

The more important improvements made on the lines now comprising the New York Central Railroad since January 1, 1910, include:

Further construction at the Grand Central Terminal, at a cost of $30,000,000 (including commercial buildings), in order to meet the requirements of an increasing passenger business, and to develop the valuable real estate within the terminal area. The annual rentals received from the Grand Central Terminal amount to more than $2,000,000, which should increase as further improvements are completed and become productive.

Acquisition of important links in the company's main line previously held on lease, $14,185,000.

Four-tracking between New York and Albany, including improved signaling and new stations, $15,931,000.

New passenger stations at Rochester and at Utica, including new engine terminals, new yards and appurtenances, $6,886,000.

Elimination of grade crossings and enlargement of Gardenville yard, $3,276,000.

Electrification work between New York, Croton and White Plains, $3,783,000.

Enlargement and improvement of facilities west of Buffalo, $14,000,000.

Since January 1, 1900, the New York Central and Hudson River Railroad Company, the Lake Shore and Michigan Southern Railway Company and their subsidiaries, now consolidated into the New York Central Railroad Company, increased their resources by $658,000,000, of which over $122,000,000 came from the sale of capital stock and over $114,000,000 from earnings. The remainder came from the sale of bonds, equipment trust certificates, and notes.[2]

Other Investment Considerations.—In addition to the three conditions noted above it is important that a corporation's management give cognizance to other investment considerations, although these are not as significant as the three conditions just described. It is well, for illustration, that the general investment market be properly gauged, although a favorable or unfavorable reception to a new stock offering may be usually forecast by the price at which the stock is offered. This matter of the general market conditions seems to have been unduly emphasized by an early writer on the subject who says, "The presence of a large number of stock authorizations today (1910) point significantly to the fact that those companies are on the whole compelled to adopt this mode of raising capital. Money is dear, bond issues are difficult to float, and the average investor is unwilling to put any more money into construction unless a little larger return, speculative though it may be in character, is apparent to him. Whenever such a state of affairs is general in the country, we have the corporations, and particularly the railroads, applying to their stockholders for aid."[3] This presumption does not seem to have the generality that the writer would imply. True, if earnings are fully maintained during the period when bonds cannot be sold, it is perhaps conceivable that there may be an unusually large number of privileged subscriptions offered. But even this does not seem to work out in practice. In the spring of 1920 bonds could be sold only with great difficulty, and the earnings of industrial corporations were conspicuously large, yet there were relatively few privileged subscriptions. The United Gas Improvement Company, with much effort, sold a new issue of preferred stock to its stockholders, and one or two public utilities practically forced their stockholders to subscribe to an issue of first preferred stock in order to refund maturing current debt. Such subscriptions could hardly be called "privileged," however. Otherwise the privileged subscriptions were unusual. The reason was that stock prices quite as much as bond prices were depressed. Public utility corporations were compelled to issue notes and quick-maturing debentures or else forego new capital for extensions. Industrials sold Liberty bonds, if they had them, and issued special preferred stocks. In all these cases the aid of outside bankers was enlisted rather than the stockholders.

---

[2] New York Central Railroad Circular to stockholders, dated February 23, 1915.

---

[3] Burgunder, S. S., "The Declaration and Yield of Stockholders' Rights," 35 An. Am. Ac. Pol. Soc. Sci. 558 (May, 1910).

Offer of Preferred Stock or Bonds.—If the corporation can meet none of these conditions and yet its directors believe that their own stockholders afford the best source of new capital they may authorize a new kind of security, such as a preferred stock or a debenture bond, to be sold among the stockholders. In such cases the new security, never having been offered before, has no market price. It becomes, therefore, merely a matter of nice investment judgment for the stockholders to decide whether or not the new security is worth the price at which it is offered by the corporation. Very often the issue is considerably confused by the circumstances of the offering—a high dividend-bearing preferred stock offered at a premium so that an intelligent judgment on the part of the rank and the file of the stockholders is very difficult. The Virginia-Carolina Chemical Company, for example, offered in July, 1911, its 8 per cent preferred stock to its stockholders at $115 a share. Neither at that time, nor at any time subsequently, could the price be said to be justified by the financial condition of the company.

By resorting to the sale of a form of security, the value of which is not easily gauged the corporation is often able to get more from its offering than the new security is actually worth, judged from the probable values investment bankers would pay for it. These observations apply with conspicuous force to a period such as 1919 and 1920 when investment bankers were loath to underwrite any new issue of securities except for a very high commission. Many public utility corporations which had made extensions to meet the demands of war, but which could not afford to meet the demands, reasonable or extortionate according to the point of view, of investment bankers, sought to sell special issues of securities to their own stockholders. Their earnings were liberal and their businesses firmly established, yet these new securities could not be sold in the open market. The stockholders, with a direct interest in the company already, afforded the best market.

Thus the United Gas Improvement Company, an old-established, prosperous and on the whole conservatively managed public utility company[4] sold a large issue of 7 per cent preferred stock to its stockholders at par. Other high-grade holding company preferred shares were then selling in the open market at a price to yield the investor over 8 per cent. The Southern Utilities Company sold its stockholders an issue of 8 per cent first preferred stock in the summer of 1920, when the earnings of the company during the preceding year hardly admitted of the sale of preferred stock at any price. Sometimes special inducements are offered to persuade stockholders to avail themselves of these backhanded privileged subscriptions. In 1914 the directors of the Standard Screw Company proposed to offer the holders of the 6 per cent preferred stock new 7 per cent preferred stock to the extent of 50 per cent of their holdings, and the directors proposed to convert the old 6 per cent stock into 7 per cent stock for any shareholder who subscribed to his allotment.

Conditions of Offer.—If it is decided by the corporation to offer new stock at less than its probable market value, the old stockholders will have the privilege of subscribing to the new stock in proportion to their holdings. This privilege is usually offered under carefully specified conditions. The time, for example, over which the right of subscription extends is very carefully defined, although the period varies considerably. In close corporations, where the privilege is of great value, the directors usually restrict the offering to stockholders of record at the time and allow them only a short time within which to subscribe. In large corporations, with widely diversified stockholdings, the privilege is often made to apply to the stockholders of record some days after the vote and the period during which the new stock may be acquired extends over some months. If it is necessary to obtain the consent of the stockholders themselves by a vote at a special meeting, or the consent of some regulative commission the whole proceeding may be considerably protracted.[e] Usually the stockholders are allowed to pay for the new stock in instalments,[f] and interest is allowed them on all payments preceding the actual delivery of the stock. When there are two classes of stock the practice varies considerably. If the privilege is valuable, it is usually confined to the controlling common shareholders; if it is not very valuable and some difficulty is anticipated in securing subscriptions it is invariably extended to both classes of stockholders. Instances exist in which it has been extended to bondholders.[g]

---

[4] Book IV, Chapter V, page 754.

Value of Stock Right.—The specific privilege that goes to all the old stockholders to subscribe to the new security is called a "right." [h] Rights are bought and sold on the stock market in the same manner as shares are bought and sold. Their market price depends on the relative advantage of acquiring the stock of the corporation by subscription over the ordinary purchase in the open market. The market value of a right is determined theoretically with reference to the price of the old shares. If r represents the number of shares carrying one right, s the subscription price, and m the market value of the old stock, we may express the theoretical value, v, of a right by the formula,

---

[e] Sometimes the proceedings are dragged into the courts. During the latter part of 1906 the Great Northern Railway offered its stockholders $60,000,000 of new stock at par. The attorney-general of Minnesota secured an injunction against the issue on the ground that it required the consent of the Railway and Warehouse Commission. The attorney-general won his case in the lower court, but the Great Northern Railway won on an appeal to the Supreme Court. Meanwhile the date on which the stockholders could subscribe was put forward seven times.

[f] Sometimes these cover a considerable period. Thus the Northern Pacific Railroad in 1906 offered $93,000,000 of new stock to its stockholders to the extent of 60 per cent of the par value of each stockholder's holdings. This required a considerable outlay of money. But the corporation allowed the new stock to be paid for in nine payments covering a period of more than two years.

[g] In 1909 the New York, New Haven and Hartford Railroad offered new stock at $125 a share to the old stockholders to the extent of 25 per cent of their holdings. The 3½ per cent debenture holders were permitted to subscribe to the extent of 16⅔ per cent of the par value of their bonds, and the 6 per cent debenture holders to the extent of 25 per cent of theirs. Unregistered holders could subscribe, provided their bonds were presented and stamped.

[h] Care should be observed in the use of the term "right." In Boston a "right" is the fractional privilege that belongs with each old share; in Philadelphia it is the privilege of buying a new share. In New York the word is used in both senses. This difference in usage will appear from a single illustration. If the stockholders of a certain corporation are permitted to subscribe to one new share at par for every five shares already held. the Boston nomenclature would call the fractional privilege adhering to every old share a right, whereas the Philadelphia usage would call five of these separate privileges a right.

$$v = \frac{m - s}{r + 1}$$

For example, the American Telephone and Telegraph Company offered new stock at 120 at the ratio of one new share for every five shares already held, and the stock was selling at the time of the announcement at 151½ a share. Then the theoretical value of the right is given directly by the formula:

$$v = \frac{151\frac{1}{2} - 120}{5 + 1} = 5\frac{1}{4}$$

Many people presume that the value of a right is given directly by dividing the difference between the subscription price and the market price by the ratio. This is incorrect, because it should be remembered that the reduced subscription price of the new stock is going to act as a dilution of the value of the premium on the old shares.

Market and Theoretical Value for Rights.—The market price of a right is seldom equal to its theoretical value. The assumption that the two are equal would presume, in the first place, that the subscription to the new stock through the medium of the purchase of rights would represent a cost equivalent to the stock bought on the open market. Yet the purchase of the stock through the rights involves more trouble. Most men therefore would prefer to buy the stock outright on the market rather than through subscription to the new stock unless the latter method were the cheaper. In order to establish a free market for the rights they would have to be offered at a slight concession under their theoretical value, even though there were no other reasons to depress the value of the rights. But there are other reasons.

There has always been, among brokers, a feeling that rights sell for most at the beginning of the subscription period, and least at the end. This feeling has amounted to little more than an assumption on the part of the brokers, supported by a few examples culled from their own experience. But when the assumption is tested by the facts available, it is found to be true. As a result of an elaborate study of 91 cases of privileged subscription the tabulated results showed that in somewhat over half the cases studied, the stocks and with them the rights sold for the highest price at the beginning of the subscription period. In one-half of the remaining cases—one-fourth of all—the stocks and rights sold for most at the middle of the period, and in the remaining cases—again one-fourth of all studied—they sold for most at the end of the period.[1]

There are numerous reasons which may account for the fact that both the old stock and the "rights" sell for most at the

---

[1] The statistics referred to were those of E. G. Mears incorporated in a thesis presented for graduation to the Harvard Graduate School of Business Administration (1912). The 91 cases include the privileged subscription to the stock of 47 railroads and 44 industrials. The effort was made to compare the prices of stocks at the beginning, middle, and end of the subscription periods. Mears also compared the changes in the price of the privileged subscription stocks with the general current of the stock market during the periods of subscription. But the relative results obtained from this comparison in no wise altered the results obtained from an absolute comparison. The following table is abridged from these statistics:

FLUCTUATIONS IN MARKET PRICE DURING PERIOD OF THE RIGHT TO SUBSCRIBE IN PRIVILEGED SUBSCRIPTIONS

(91 cases, between 1906 and 1912)

	Changes in Stock Prices			Un-important Changes	Highest Values of Rights		
	No. of Cases	In-crease	De-crease		Begin-ning	Middle	End
RAILROADS:							
Broad Market	34	10	21	3	19	5	10
Narrow Market	13	3	8	2	8	3	2
INDUSTRIALS:							
Broad Market	28	7	17	4	11	10	7
Narrow Market	16	6	9	1	9	2	5
Totals	91	26	55	10	47	20	24
Percentages	..	29−%	60+%	11%	52−%	22%	26%

Practically identical results were reached by an independent study of the market prices of "rights" during the periods for which they were quoted.

beginning of the period. In the first place, the price of both is determined by the law of demand and supply. Clearly, a sudden increase in the supply of the stock, without a correspondingly sudden increase in the demand for it, would inevitably depress the price of the stock, and with the price the market quotations for the rights. But this will not react on the market price for some period of time, or until the influence of the new stock begins to be felt in the increased offerings, so that there will be a short period during which the new stock, although its existence is known, will not be a factor in determining the price of the old. But as the new stock begins to be bought and sold in anticipation of its issue, it will begin to exert a depressing effect on the price of the stock and incidentally on the rights. Another direct reason, more obvious but less potent, that explains the gradual decline in market price of the rights and with them the stock during the subscription period, is the general inertia of the stockholders, which leads them to put off the selling of their rights to the last minute; meanwhile the "odd lots" of rights held by the small investors have been "evened up," so that the regular sale of small lots will have become negligible. Under these circumstances, the rights that are offered are bought only by speculators who see a temporary profit in this purchase. Naturally such a class of buyers will acquire them only if the purchase of the rights permits the subscription to the new stock at a price appreciably lower than its general market price.

[illegible]

Effect on Permanent Value of Stock.—Closely connected with the question of the value of the privileged subscription itself is its effect on the permanent value of the stock. This is extremely difficult to discover. Unquestionably whenever there is a privileged subscription by means of which the stock is sold to stockholders for less than its market value, there follows an immediate dilution of the stockholders' surplus. This is involved in the very idea of buying stock of the corporation for less than its proportional valuation of the corporation's assets.

But the general impression existing among brokers and investors is that the market value of the stock—that is the new and the old stock together—soon recovers the loss that resulted directly from the stock issue. Brokers advise their customers to buy very desirable stock as soon as it has gone "ex-rights" on the assumption that it will soon be selling on the same level as before the privileged subscription. In the case of bank, insurance, and many mill stocks that command a high premium, this is probably true. There seems, however, to be no well-established evidence to prove that it is generally true for the average railroad and industrial stock.[j]

Methods of Realizing on Rights—Sale.—There are several ways in which a stockholder may take advantage of a privileged subscription by turning it directly into money without increasing his stock holdings. The most obvious is the immediate sale of the rights. In this way the proceeds may be looked upon as an extra dividend, and some corporations offer new stock for the purpose of distributing, or rather diluting, a large, embarrassing surplus.[k] If this method is to be fol-

---

[j] On this point Mears (see previous note) prepared some statistics. Of the 91 railroad and industrial privileged subscriptions studied 48, or 53 per cent, showed an increase in value during the two months following the close of the privileged subscription, 39, or 43 per cent, showed a decrease in value during the succeeding two months, and in 4, or 4 per cent, instances there was no appreciable change.

[k] Some state laws have frowned on privileged subscriptions for stocks of public utility corporations on the ground that such subscriptions are only indirect means for declaring extra dividends—means that deceive the public as to the true earning power of the corporation. The state commissions in Massachusetts have fixed the price at which the shares of public utility corporations shall be offered to the shareholders, or have required that the new stock be sold at auction. The policy pursued by the Boston and Maine Railroad during the long period of its mismanagement shows an alternation of the two methods.

Year	Number Shares	Method of Sale	Price	Dividend	Net Return
1901	14,643	Allotted	$190	7	3.68%
	2,709	Auction	196½	7	3.56
1903	2,000	Auction	190½	7	3.67
1905	8,000	Auction	170⅝	7	4.10
1906	36,337	Allotted	165	7	3.24
1910	3,699	Auction	143½	6	4.18
1911	104,364	Allotted	110	6	5.45
1912	2,273	Auction	105¼	4	3.81

The fact that the commission fixed a price of $165 a share for the lowed, past experience requires that the sale of the rights be made immediately on the announcement of the subscription.[5] In case the actual rights have not been received by the stockholder, the prospective rights may be sold on the so-called "curb" market "w.i.,"—"when, as and if issued."

Subscribing and Selling the New Stock.—A second method of realizing on the rights is by subscription to the stock and then by the sale of the new stock some months after the subscription period has closed. For if the available supply of the stock has been suddenly increased by the privileged subscription, it follows that the market price will probably be lowest during the time of the subscription or immediately after its close, so that no sale of the stock should be made at or near this critical period. After the new stock has been absorbed, the normal increase of the demand without a corresponding increase of the supply will probably bring about a rise in price, so that the new stock may be sold advantageously. The difference between the price realized and the subscription price will be the profit received through the privileged subscription, and ought, theoretically, to be equal to the amount that could be realized from the sale of the rights. Often it is more.[6]

Selling Short in Connection with Subscription.—The most profitable way for stockholders to profit through a privileged subscription is, in the majority of cases, through the immediate sale of the stock and the subsequent purchase of sufficient rights, at the end of the subscription period, to reproduce the original holdings.[7] Thus, if a stockholder owned

---

Boston and Maine Railroad stock as late as 1906, is evidence of the intelligence and wisdom shown by public utility commissions in protecting the interests of small investors in railroad property.

---

[5] See note (i).

[6] See note (j).

[7] The judgment that this is on the whole the best method of realizing on a privileged subscription is clearly stated by Mitchell in his exhaustive study of the subject. Mitchell, T. W., "Stockholders' Profits from Privileged Subscriptions," 19 Quart. Jour. Econ. 238 (Feb., 1905). It is also suggested by Burgunder in the study in which he considers privileged subscriptions from the point of view of the stockholder. Burgunder, S. S., "The Declaration and Yield of Stockholders' Rights," 35 An. Am. Ac. Pol. Soc. Sci. 559 (May, 1910).

shares in a corporation and the privilege of subscribing to new stock was offered him, the most profitable way for him to realize on his privilege would be for him to sell his entire holdings immediately on the announcement of the proposed subscription, before the anticipated burden of the increased supply of stock began to depress the market. He would obtain a price but little below that prevailing on the basis of the old supply. Later when the rights were lowest in value, just before the termination of the subscription period, he should purchase a sufficient number of rights to enable him to reproduce his original holdings. And the cost of these rights, together with the subscription price, and possibly the adjustment of interest during the period of waiting, would be less than he received for his original shares. The difference would be, indirectly, the proceeds realized from his privileged subscription. Ordinarily it would be more than that realized through either the sale of the rights or the sale of the new stock.

By inference it might be concluded that a speculative profit is to be obtained by selling "short" the security on the announcement of a new issue of stock.[1] Theoretically this is true, and in the great majority of cases it will prove true in practice. Yet, sometimes, by a kind of inverted reasoning, the speculator is caught in the meshes of his own snare. Other

---

[1] This method of realizing on a privileged subscription is discussed by W. H. Lough. He seems to look with favor on the method. "The stockholder who sells 'short' under these conditions is taking very little risk inasmuch as he is certain to be able to make delivery when the subscription privilege takes effect, and is usually able to sell under the most favorable conditions."[8] This statement is on the whole true, since the new issue probably lowers the previous price of the share by more than the rights, in so far as it increases the supply of stock without ordinarily increasing the demand. Hence the speculator is able to realize a profit through immediate short sales. This is a phase of the principle, already discussed, that the rights sell for more at the beginning than at the end of the subscription period.[9]

The method is disapproved of by Mitchell[10] because of the risks incident to the short selling and the fact that it involves brokers' interest charges and the danger of a continual call for margins.

---

[8] Lough, W. H., Business Finance, 308 (1917).

[9] See page 860, note i.

[10] *Op. Cit.*

speculators likewise inferring that money may be made by the sale of the stock on the announcement of a privileged subscription, will create a sudden and artificial selling pressure. A heavy short interest is thus created. And if another member of the speculative fraternity acquires these short contracts, he will be able to force the stock upward, instead of downward, through the mere pressure of the short interests to purchase stock to cover their contracts.

An interesting example of exactly this thing occurred in connection with the acquisition of the control of the Louisville and Nashville Railroad by the Atlantic Coast Line. In the spring of 1903 rumors became current that the Louisville and Nashville Railroad was about to increase the issue of its stock. The Wall Street bears began to sell the stock short on the assumption—almost invariably true—that the market price would decline on the official announcement of the new stock issue. On the announcement of the new issue of $5,000,000 the short sales increased; meanwhile Gates, a speculator, formed a "pool" to quietly buy stock as rapidly as it was offered by either the short sellers or the actual holders of the stock. The price of the stock rose steadily, in the presence of the heavy selling, the representatives of the "pool" buying all that was offered. In the end, apparently without any intention on their part, the members of the Gates "pool" found themselves in possession of the stock control of the Louisville and Nashville road. Ultimately the pool turned over the control to J. P. Morgan and Company. The Morgan firm in its turn passed the control to the Atlantic Coast Line. This somewhat dramatic incident has been recounted many times.[11]

Profits from Privileged Subscriptions.—The profits that come indirectly to stockholders of corporations accustomed to offer privileged subscriptions afford a substantial addition to the regular dividends.[m] Owing to the fact that these privileges occur at infrequent intervals they do not increase the market

---

[11] See brief reference in Book IV, Chapter IV, page 730. Also Ripley, W. Z., Railroads, Finance and Organization, 214 (1915); Dozier, H. D., The History of the Atlantic Coast Line Railroad (1920). Also 23 Rep. R.R. Com. of Ky.

---

[m] There have been two exhaustive studies of this subject, each writer using specific cases. T. W. Mitchell studied the profits to stockholders in 1905, using chiefly railroads as his data. S. S. Burgunder made a similar study in 1910, using the same data. There has been no exhaustive study of the privileged subscriptions of industrials. Since 1910 the privileged subscriptions of industrials have been more numerous and important than in the case of railroads.

Burgunder gives an interesting table showing the number of times privileged subscriptions have been offered between 1880 and 1910 for eleven corporations.

Name	No. of Times Privileged Subscriptions	Owner of 100 Shares in 1880 Would Have in 1910
American Telephone & Telegraph Co.	3	200.00
Baltimore & Ohio Railroad	4	209.30
Canadian Pacific Railway	5	269.57
Chicago, Milwaukee & St. Paul Railway	5	253.69 (together with 101.48 pfr.)
Cleveland, Cincinnati, Chicago & St. Louis Railway	2	132.00
Great Northern Railway	8	693.00 (together with 495 ore certificates)
Illinois Central Railroad	8	363.32
New York Central & Hudson River Railroad	5	245.20
Pennsylvania Railroad	9	384.76
Northern Central Railway	3	225.00
United Gas Improvement Co.	8	559.65

Burgunder then goes on to say: "In addition to the greater increase in the amount of stock procured, in a railroad like the Great Northern, the subsequent rise in price of the stock made those new shares worth more than when issued." He then goes on, by elaborate calculations to show the net yield to the stockholder, provided a stockholder had bought stock at the time a privileged subscription was first offered. The results are somewhat arbitrary in that they stop at 1910 and assume, throughout, that the interest value of investment funds is 5 per cent.[12]

T. W. Mitchell studied, in 1905, the cases of five railroads which had then made frequent use of the privileged subscription as a means of securing money for extensions—Illinois Central, eight issues between 1887 and 1903; Great Northern, five issues between 1893 and 1903; New York Central, three issues between 1893 and 1903; Baltimore and Ohio, three issues between 1899 and 1903; Missouri Pacific, six issues between 1886 and 1903. He summarizes the statistical study of these five cases as follows: "A review of the five sets of privileges set forth in the above tables will bring out several facts. First, a company which is in a sound financial condition, as are the Illinois Central and the Great Northern, and which pursues a liberal policy toward its stockholders, may greatly add to their annual income through the privileges it offers. Secondly the profits from these sources are not adequately reflected in the market price of the stock. Thus the Illinois Central stock, which has in recent years been yielding its holders from 8.25 to 11.9 per cent on its par value, has been selling at from $120 to $170, prices which should go with a 6 to 8 per cent stock. Great Northern stock has been paying its holders from 15 to 21 per cent per annum on its par value; yet its market quotations have ranged only from $136 to $200, prices which should naturally go with a 7 to 12 per cent investment. This is naturally to be expected. The value of the stock to the same extent nor in the same proportion as regular dividends. This is conspicuously true in the case of corporations which offer privileged subscriptions only infrequently; it is not true in the case of certain very prosperous banks which extend to their stockholders the privilege of buying new stock with almost perfunctory regularity. Then, too, the reasonable certainty of privileged subscriptions has created an unusual demand, and possibly abnormal market price, for many stocks which would, without this expectation, possess merely a local market. This is conspicuously true of the stocks of Massachusetts public utility companies and Hartford insurance stocks.

---

[12] Burgunder, S. S., "The Declaration and Yield of Stockholders' Rights," 35 An. Am. Ac. Pol. Soc. Sci. 560-578 (May, 1910).

Underwriting Privileged Subscriptions.—The uncertainty surrounding the privileged subscription and the effect which it is likely to have upon the market price of the stock often make it unwise for a corporation to trust implicitly in the success of the sale of stock to stockholders. The corporation requires the money, and does not care to have the success of its sale jeopardized by temporary or permanent declines in the market price of its stock.[n] The corporation must therefore safe-

---

returns from privileges, though known to be large, came at irregular intervals and in irregular amounts. Consequently, the ordinary man who is not a mathematician does not know how these returns compare with the regular returns from current dividends. Further, although he may realize that past returns from these sources have been large he has no means of judging of future returns from the same sources." [13]

This observation, although made a number of years ago would apply in general at the present time. Especially is it true with reference to industrial corporations which have issued privileged subscriptions as a result of inflated market values for their stocks consequent upon large war profits.

[n] In July, 1912, the United States Rubber Company offered its stockholders a new issue of preferred stock at par, the market price being then approximately $110 a share. The sale was a success. A year and a half later the same offer was made at a time when the market price was approximately $106 a share, but the general investment conditions were unfavorable. The immediate effect of the offer was to depress the price to below par and the sale was a failure—stock to the amount of not more than a few hundred thousand out of a possible nine and a half million dollars was subscribed to by the stockholders.

On November 15, 1916, the directors of the New York Central Rail-guard, or insure, the success of an offering of stock to its stockholders. This is ordinarily done by means of an underwriting syndicate, the functioning of which was described at an earlier point.[14] In actual operation a group of outside bankers, or quite commonly the more wealthy of the directors, insure the success of the offering, agreeing to take all the stock not subscribed for by the stockholders themselves. For this service, or rather for taking this risk, the syndicate receives a commission on the entire amount of stock offered, usually about 2 per cent. In case the stockholders take up their entire allotments the syndicate is required to take no stock, but if any remains unsubscribed the syndicate takes it from the corporation at the price which the stockholders would have paid.

---

[13] Mitchell, T. W., "Stockholders' Profits from Privileged Subscriptions," 19 Quart. Jour. Econ. 257 (Feb., 1905).

The risks of an underwriting syndicate of this character are considerable. The tastes of stockholders are fickle and the investment market uncertain. But a group of bankers is in a much better position to carry these risks than the corporation itself. In 1903 the Pennsylvania Railroad, then in the midst of enormous expenditures on its New York terminals—expenditures which many regarded as of doubtful expediency—offered its stockholders new stock for $60 a share, the market price at the time being about $72. The amount to be subscribed was $90,000,000, an amount which it was assumed would be absorbed easily by the old stockholders. But the stock was not to be subscribed for until some months after the announcement of the subscription. Meanwhile financial conditions became unsettled, stock market prices of all securi-

---

road offered the stockholders $25,000,000 new stock at par, subscriptions to be made between January 20, and February 13, 1917. The offer was not underwritten. Soon after the offer was made the market price of the stock of the New York Central declined to less than par. Consequently most of the stock was left unsubscribed for. On February 15, the company, realizing that the privileged subscription was a failure, offered to return the subscriptions of those few of the stockholders who had subscribed for the new stock.

---

[14] Underwriting syndicates of all kinds described in Book II, Chapter VIII. See particular type described on page 381 *et seq.*

ties declined, and, in particular, doubt was cast on the wisdom of the Pennsylvania Railroad's heavy terminal expenditures. As a result of all these circumstances the price of the stock declined to a little less than $60 a share. If it should remain below $60 the sale to the stockholders would prove a failure, because the stock could be more cheaply bought in the open market. Finally a syndicate was formed which for a commission of 2½ per cent guaranteed to the railroad the success of the sale. Immediately after the formation of the syndicate was announced, the price of the stock advanced and ultimately most of the new stock was taken by the stockholders.[15] The mere fact that corporations of the magnitude and strength of the Pennsylvania Railroad have found it necessary to employ underwriting syndicates of independent bankers to insure a successful sale of stock to their stockholders, shows how difficult and, on the whole, precarious is this method of obtaining money for expansion.[o]

---

[o] Underwritings of Pennsylvania Railroad securities have not by any means been always successful. In 1905, when the railroads—particularly the Pennsylvania—were prosperous, bankers underwrote $100,000,000 3½ per cent convertible bonds at a commission of 2½ per cent. The syndicate disposed of only $10,000,000 immediately. A considerable part of the remaining $90,000,000 was held through the panic of 1907, when the bonds sold as low as 83½.

---

[15] Other illustrations are given by Ripley, W. Z., Railroads, Finance and Organization, 137 (1915). See also 35 An. Am. Ac. Pol. Soc. Sci. 558, and 54 Ry. Age Gaz. 517 (1913.)

CHAPTER X

CUSTOMER OWNERSHIP

Reasons Given for Offerings.—Closely allied with the sale of stock to a corporation's own stockholders is the sale to a corporation's own customers and employees. Efforts to accomplish this end, sometimes specifically called customer ownership, have been utilized among a great variety of businesses. The excuses ordinarily used to justify the solicitation of stock purchases from customers is the closeness of union between buyer and seller—the need and advantages of close co-operation—and the economy with which capital may be obtained. Sometimes large businesses are established on these two foundations. The original United Drug Company, for example, was established on the idea of selling United Drug Company's stock among a specially selected group of apothecaries who should feature prominently the "Rexall" remedies to be manufactured exclusively by the United Drug Company. The plan has also been used by a wholesaler and a group of retailers to provide additional capital for the former and a kind of indirect rebate to the latter. Likewise it has been used by groups of jobbers to provide the capital necessary to manufacture, on a large scale, some standard commodity used by all the jobbers.

Customer Ownership Among Public Utilities.—Although used in varying circumstances by a great number of corporations it is among the public utility companies, within the period since the armistice, that customer ownership has been most highly developed. It is the historical outgrowth of the promotion and extension of the utility by subscriptions from the local merchants, farmers, bankers, physicians and lawyers who are the largest customers of the utility's service. As used, however, to mean the direct solicitation of stock subscriptions from a utility's own customers the plan was probably first used to some extent in 1908 by the Central Maine Power Company,[a] and first exploited on a large scale by the Pacific Gas and Electric Company in 1914.[1] Since then the number, extent and scope of utilities relying, to some extent, at least, upon customer ownership have increased to such an extent that in 1925 probably a third of the new capital obtained by the electric utilities was obtained by the sale of securities to customers. Efforts to secure customer ownership have been used, extensively, by the gas companies, but water and electric railway utilities have not tried to dispose of their securities to their customers to any large extent.[b]

---

[a] This statement may not be strictly true. Henry L. Doherty, one of the most resourceful men in the industry, may have first conceived the idea and employed it in Denver, Colorado, and a little later in Madison, Wisconsin, and Columbus, Ohio.

[b] The following figures compiled from the records of the N. E. L. A. derived from questionnaires indicate the rapid growth of the customer owners.

	Number of Shares Sold Under Customer Ownership Plan	Number of New Customers (Employees Included)	Rate of New Shares to New Customer Owner (Approx.)
1914	92,310	4,044	23
1915	57,130	4,357	13
1916	38,183	3,681	11
1917	82,007	8,242	10
1918	42,388	5,186	8
1919	194,021	19,872	10
1920	454,139	53,063	9
1921	830,222	118,544	7
1922	1,450,707	156,725	9
1923	1,806,300	279,186	7 −
1924	2,478,165	294,467	7 +

These statistics for 1924 represented the records of 208 companies out of approximately 1,100 which reported to the Association.

The following statistics prepared by the N. E. L. A. for 1924 are illuminating:

DATA ON CUSTOMER OWNERSHIP

SUMMARY OF SALES IN 1924

Common Stock shares	286,359
Preferred Stock shares	2,191,806
Total	2,478,165

[1] Many of the facts of these sections were obtained from studies based on questionnaires, prepared by the National Electric Light Association. The reports of the Customer Ownership Committee of the National Electric Light Association are the most exhaustive and thoroughly reliable collection of data on the subject. The June, 1925 report of this committee, frequently hereafter quoted, contains the most complete bibliography of the subject ever compiled.

Classes of Securities Sold.—As customer ownership is now ordinarily understood by bankers, the utility managers and their customers generally it implies merely the sale of preferred stock to the water, gas, or electricity customer by the utility itself. This sale is usually effected by special solicitation either by stock salesmen who move about from one town to another or by the ordinary meter reading, coin box collecting, or central office clerk employees. Ordinarily the number of shares sold to each customer ranges from one to twenty-five and the customer pays for the stock by instalment payments charged on

---

Value of securities sold during 1924 (stated in par)

Common Stock	$ 26,173,600
Preferred Stock	214,771,000
Bonds, Notes, Debentures	13,071,960
Total	$254,016,560

Analysis of the returns of companies reporting in full on the detailed information asked for on Customer Ownership questionnaires developed the following data:

Of the total stockholders obtained under Customer Ownership Plan—

64.7% were Customers
9.7% were Employees
25.6% were Others
100%

Of the total number of shares of stock sold under Customer Ownership Plan—

69.8% was sold to Customers
6.6% was sold to Employees
23.6% was sold to Others
100%

All Companies

Average percentage employee stockholders to total employees	41.6%
Average number of shares per employee	6.4
Average number of shares per customer	10.2

It should be observed that these figures are not exhaustive as many small utilities sold small amounts of stock and notes to customers through personal solicitation by employees without embarking on any organized campaign. Also these statistics cover only the sale of stocks. Many utilities sold short-term notes—usually convertible into stock—or even long-term bonds to their customers. Approximately $50,000,000 of obligations were sold in this manner by the largest utilities since 1914.[2]

It is obvious, too, that statistics compiled by the N. E. L. A. do not cover gas and water utilities unless the latter happen to be owned by a corporation primarily engaged in selling electricity. The reports of the American Gas Association indicate a very rapid growth among companies engaged primarily in distributing gas to domestic consumers.

Obviously, too, great national utility customer ownership campaigns, like that of the American Telephone and Telegraph Company—"pay your telephone bill by telephone dividends"—are not included in this summary.

---

[2] Ref. N. E. L. A. 1925, page 20.

his regular monthly service bills.[c] The price is par, more frequently than not, although there are many cases in which the price charged is both above and below par.

It was just stated that the security offered is most frequently the preferred shares. Moreover, the preferred shares are usually parts of issues otherwise dealt in on the exchanges or by stock traders. To this statement, however, there are many exceptions. The larger utilities, especially in the west, and the utilities in Massachusetts and certain other New England states, which have only common stock in their financial plan, have frequently undertaken special campaigns to sell their common shares to their customers. Also, in order to induce the utility to make extensions, manufacturers have purchased three- to five-year notes at rates of interest conspicuously favorable to the utility. This expedient was frequently resorted to in the latter years of the Great War when all utilities experienced difficulty in securing new capital through the customary banking channels. There are instances, too, in which a special customers' preferred or participating or Class A stock has been brought into existence and its sales specifically limited to the utilities' ratepayers and employees. These cases are exceptions. Yet it should be remembered that the appeal to a corporation's own customers and employees is so simple that countless special cases can be found among the great number of customer ownership sales during the last few years. In spite of these exceptions the fact remains that customer ownership ordinarily means the sale of 6 or 7 per cent preferred stocks to customers at par.[d]

---

[c] Of the 208 companies reporting to the N. E. L. A. using customer ownership campaigns in 1925 about 26 per cent of the stock sold was on the instalment basis of payment. Undoubtedly the percentage of the number of new customer-shareholders using this method was greater.

[d] From statistics available covering a large number of customer ownership campaigns it is apparent that over 75 per cent of the separate sales, during the period of 1920 to 1924, were of this standard form and upwards of 90 per cent in amount of the par value of securities disposed of were 6 or 7 per cent preferred stocks (the latter rate greatly predominating) sold at par.

Selling Campaigns.—The campaigns are usually planned by an officer or even a department of the utility, and the employees are then given a more or less elaborate training to prepare them for the personal solicitation of stock orders among customers. To launch the campaign or "drive" a big "inspiration" meeting, a dinner or picnic is held, competitive teams, with prizes to the winners, are allotted territory. These teams may have their captains and lieutenants and adopt a rather complicated organization to develop the greatest competitive efficiency from the members. In the larger companies the solicitors devote their entire time to interviewing the customers of the utility, but among the smaller companies the regular employees give their evenings to the work. As the solicitor is most likely to meet both the customer and his wife in the evening, the work can be done very well as an auxiliary occupation to the regular daytime job. Meter readers, being somewhat familiar with the patrons of the company, are extensively employed in this manner and are remarkably successful. The solicitor is paid, ordinarily, a commission on his sales. This varies with the necessities of the utility and the amount of effort required. It is frequently greater for cash than for instalment sales. A commission of $2 a share is perhaps the commonest.

The work of the personal solicitor is supported and strengthened by pamphlets, circulars, articles, and billboard and newspaper advertising. To this end a variety of slogans have been adopted of which the following are examples. "Pay your electric light bill by electric light dividends," "Invest in your own gas company," "Two incomes for every family," "Dividend checks four times a year, as regularly as the seasons," "Partnerships with customers," "Watching your nest egg," "Investments you can see," "Investments that endure"—and the like. It is surprising with what energy the regular employees of the utility undertake the work of soliciting subscriptions. In the spring months of 1924 over half the employees of the Commonwealth Edison Company were taking part in a sales campaign.[e]

Objections to Sale of Preferred Shares—Shrewd Practice.—Much has, of late, been written in praise and in strong condemnation of the sale of utility preferred shares to customers. Perhaps the strongest argument against it has risen from the presumption that the utilities perpetrate a sharp practice or even a fraud upon their customers by cajoling them into paying conspicuously more for a security than it is actually worth. Or, in other words, they create ill-will by taking advantage of the average ratepayer's ignorance of stock values and sell to him a security of doubtful or speculative value with the avowed purpose of getting the most and giving the least. If such a practice were at all wide-spread, it would undoubtedly create an attitude of mind in the customer stockholder which, if at all prevalent, would bode ill for the utility in its future relations with the public. But such cases are rare, and these rare cases are so generally known that they cannot be considered other than sporadic instances of the abuse of a public responsibility.[f]

---

[e] The following description by the Advertising Manager of one of the large holding companies describes an actual campaign.

"For instance, in November, 1923, plans were perfected for an intensive, ten-day campaign in Denver, Colorado, to sell the Preferred Stock of the Public Service Company of Colorado, an important subsidiary of the Cities Service Company.

"During the week preceding the opening of the campaign several meetings of employes, of whom there are 1,500 on the Company's pay roll, were held, lasting from thirty to forty minutes each, for the purpose of outlining the work to be done and for supplying them with necessary information for properly presenting to the Company's customers the advantages of the Preferred stock as an investment. The employes were also given copies of advertising booklets and folders for home study and distribution among prospects, and a little book containing sales instructions and answers to questions that might be asked.

"On the opening day the employes were each given a list of ten customers of the Company upon whom they were asked to call during the ten days the campaign lasted. Daily reports of progress made were filed at headquarters. In this way the campaign manager kept in constant touch with his field forces, and rendered special assistance to individual workers whenever and wherever it was needed. The result of each day's sales was posted both as an encouragement to greater effort and also to let the workers know the progress being made. A commission of $2 was paid employes on each share sold.

"There was much rivalry among the several teams, into which the employes had been divided, to see which one would make the highest report of sales. Not all employes were good salesmen, and some from whom much was expected proved the poorest of the lot. However, when the campaign came to an end, the records showed that 16,600 shares of Preferred stock, having a par value of $1,660,000, had been sold to 5,545 customers."

Implied Obligation Assumed by Company.—Probably the most important and, on the whole, the only serious objection to customer ownership campaigns is the implied obligation assumed by the utility. In their desire to make a record and to earn the commission allowed the salesman in placing the stock among customers the solicitors seldom acquaint the customer with the real financial position of the company and the ordinary risks necessarily involved in the ownership of shares of stock. The salesman himself has no training in financial methods or expedients, frequently having only the vaguest idea of the distinction between bonded debt and stock or the rights of the preferred shareholders. He memorizes a few commonplace, but perfectly accurate facts about the electrical industry, and uses liberally such slogans as "seven per cent and safety," "pay your electric light bill by electric light dividends," or "let the electric light company pay your electric light bills." And yet, so long as the money secured by the utility through such means is wisely and profitably employed the customer stockholder is well protected in his investment in spite of the cloud of ignorance and possible misrepresentation under which he purchased his shares. Such has been and the writer believes will for some time be the strength of the public utility industries that ordinarily the customer shareholder, with no technical knowledge of investments, has obtained a stronger and more reliable investment in the preferred shares of his local utility than he could have obtained through the purchase of nine out of ten stocks listed on the exchanges. In a very true sense the utilities, in forcing the inherent soundness of their preferred shares upon the attention of the small, ignorant investor, have performed, although obviously for selfish motives, a real social service. In no insignificant way they have aided in the conservation of national capital through directing the flow of savings, probably otherwise dissipated, into the upbuilding of a great industry.

---

[f] During 1921 the Central Maine Power Company was selling its 7 per cent preferred shares at prices ranging several points above par through the personal solicitation of its own stock salesmen. At the same time the stock could have been bought through brokers at less than $90 a share. This is perhaps the nearest to a fraud perpetrated on the unsuspecting public by a large utility embarking on an extensive customer ownership campaign.

In 1922 the Central Indiana Power Company sought to dispose of its 7 per cent preferred stock through bankers. The sale was not consummated and later the stock was offered to customers at 92½ per cent. At the same time the stock could have been purchased through the Chicago Curb Exchange for less than $85 a share.

The fact remains, however, that the customers are shareholders having, at best, an interest in a narrow equity of the business. The utility will have sold bonds on its properties to the maximum amount consistent with a bankers' judgment of soundness. The preferred shares represent the narrow margin above the bonds, the earning capacity of which is dependent on the continued rate structure and community prosperity. Moreover, a reduction of the rates would make, to the average customer shareholder, a much larger decrease in his monthly electric bill than it would in his dividends. This is clear to him when he realizes that the margin available to the common stock, in which the customer shareholder has no interest would be very seriously affected before the dividends on the preferred shares would be endangered. But once a reduction in the preferred dividends had become necessary, either because of lower rates or bad management, the utility would find the good-will of its customer shareholders turned suddenly into ill-will. This sudden reversion of feeling would set in very strongly against the management whatever might be the actual cause. The indignation of the customer owners would be all the greater and the harm that they would do in creating community ill-will all the more serious because of the representations made by the company at the time the stock was sold. In other words the customer owners would present a serious menace to the company during times of financial difficulties; their good-will would cease at the very time it would be of greatest value.[g]

Advantages of Customer Ownership—Sale Price Higher than Market.—There are, on the other hand, numerous advantages that can be attributed, with certainty, to customer ownership. The first is economy of securing capital for improvements and extensions. This economy to the issuing corporation may not be obtained by demanding from the customer an unconscionably high or unjustifiable price. It should be remembered that the difference between the price received by the utility from a banker and the price the latter gets from the investing public, in the case of a public utility 7 per cent preferred stock, would be at least ten points. A considerable part of this gross profit is required to absorb "drawbacks" on "trades," to maintain the market, and to offer salesmen sufficiently large commissions so they can explain fully the "situation" to the prospective customer far removed, geographically, from the utility. In both these respects the utility is at a distinct advantage. It takes no other securities in trade on the resale of which it must suffer a loss, it does not have to protect the market beyond the occasional repurchase of a few shares from an impoverished customer. The utility's own employees are satisfied by a small commission on their stock sales. It is to them a welcome addition to their customary wage and not, like the commission to the bankers' salesmen, the mainstay of their daily bread. Finally, the selling resistance that the representative of the utility must overcome is relatively small, because the customer has already a clear notion of the company and is quite ready to believe in its continued prosperity. From reports to the National Electric Light Association it would appear that there is no uniformity in the cost of selling preferred stock to customers—the figure for the individual campaigns varying from less than $1 a share to nearly $9 a share. After a considerable amount of comparison and tabulation of the figures furnished by the utilities it would appear that the average cost of customer ownership campaigns was in the vicinity of $4.60 per share of stock ultimately paid for.[3] This, however, is undoubtedly too low as the utilities, enthusiastic about the success of the plan, do not charge against the campaign the innumerable, indirect and contingent expenses which, although absorbed in the general costs of operation, should properly be allocated to the cost of selling securities. These would increase the general average to at least $7 a share, although, necessarily, the more extensive the campaign the lower will be selling costs.

---

[g] The utilities themselves have been fully aware of the implied as well as the explicit obligations assumed in the solicitation of capital from local customers through the sale of preferred shares. For example, in the 1925 report of the National Electric Light Association, the customer ownership committee contains what the committee ordains to be the "Ten cardinal rules of customer ownership." Unfortunately, however, the report forgot to mention an eleventh cardinal rule, to the effect that the price of the stock sold to the consumer must be a fair price, no greater than its actual market value. Furthermore, that the utility, no more than any seller, should be the sole judge of the fair value.

Undoubtedly the margin between the price to be paid by the investment banker, ready and capable of placing an issue of preferred stock among small investors (especially when a wide distribution is essential) and the price at which the shares are acquired by the public will be greater than $7 a share. Ordinarily it would be at least ten points, and in many cases it is greater. That is, apparently, the margin between the net proceeds to the utility and the cost to the investor is less when shares are sold by the utility to its customers than when the same shares are distributed in the usual manner through investment channels. This difference, all things considered, however, does not amount to more than four or five points, a difference which is fully counterbalanced by the disorganization to the working force of the utility incident to changing a meter reader or flatiron salesman to a stock salesman.

The real advantage to the utility, from the standpoint of economy, is that the shares are sold at a price greater than that warranted by the competitive level of prices. In other words, the utility gets more for its preferred shares than they are worth—judged by the open, unmaintained, market for analogous securities. This is an advantage never emphasized by the National Electric Light Association and seldom brought to the attention of the public. It will become apparent, however, when we note that fully nine out of ten customer ownership campaigns endeavor to sell 6 per cent or 7 per cent preferred stock at par without any reference to the competitive market for the stock. Among operating companies, in fairly good financial situation, the actual market value of a preferred stock in 1925 was about 96 for the 7 per cent stock and 81 for the 6 per cent stock. From these figures would have to be deducted at least ten points for the gross selling profit of the bankers, so that the utility would realize approximately $86 a share for the 7 per cent stock and $71 a share for the 6 per cent stock. In contrast to these prices the utility would endeavor to bring about the successful sale of this same stock to its customers at par, even though seven points would be absorbed in selling expenses. At least two of these seven points would be paid to the employees of the utility, and this commission would increase the feeling of good-will toward the company. In the light of such a contrast we need seek no further to understand the enthusiasm of the utilities for customer ownership.[h]

---

[3] Estimate of the N. E. L. A.

Improvement in Financial Structure.—Another great advantage, to the utility, of sales of stock to customers is in the improvement in the financial structure of the utility. When pressed for funds the public utility, like any other business, seeks capital where it is easiest and most quickly to be found. This is the sale of bonds or notes to bankers. If, however, new capital is obtained repeatedly from this source the financial structure of the utility becomes overweighted in the direction of funded debt. Frequent issues of stock, preferred or common, are therefore necessary to maintain the proper balance between fixed and contingent charge securities. This can be accomplished, perhaps, in no better way than through the widely extended sale of preferred and common shares to customers.

---

[h] These cases are based on the ordinary campaigns selling stock at par, where there is no objective evidence to indicate that the public price is excessive. They do not include such cases of grossly exaggerated customer selling prices—like that of the Central Maine Power Company—which approach dangerously near to fraud. (See note f, page 876.)

An attempt was made to prepare a statistical analysis and comparison of the financial structure of groups of utilities which had and which had not extensively employed customer ownership campaigns.[4] The study involved a statistical comparison of 90 central station companies which had adopted customer ownership for a period of at least four years—called Class I—and 90 central station companies which had not used customer ownership to any extent—called Class II. A typical, perhaps ideal, financial structure was assumed in which the fixed charges absorbed half of the net earnings, after depreciation, and of the remainder again one half was absorbed by the dividend on the preferred shares. This gave a well-balanced financial organization on the basis of which capital could probably be obtained on the most advantageous terms.

As a result of very careful and painstaking statistical analysis, in which various indices of relative approximation to the ideal financial structure were worked out for the entire 180 companies for a period of years, it was found that there was a distinct difference in the two classes. Whatever refinement of statistical method was employed it was found that, through the years, those companies which had employed customer ownership campaigns gradually developed a financial structure that more nearly conformed with the ideal or standard structure. Nor was this difference casual or accidental. The large number for each class neutralized differences in size, geographical distribution, and skill of management. The conspicuously closer approximation, throughout the group, both for bonds and for preferred shares, to the standard form for customer ownership companies seems quite impossible to explain in any other way.[5]

---

[4] Bruner, H. P., Thesis entitled "The Worth of Customer Ownership in Public Utility Financing," Harvard Graduate School of Business Administration. Part of this was published, "Influence of Customer Ownership on Utility Financial Structure," 1 Journal of Land and Public Utility Economics 459.

That the extensive use of customer ownership sales of stock improves the stability of the corporation's financial structure, in the eyes of the bankers, is evident from the simple fact that the most enlightened of the New York banking houses specializing in public utility securities encouraged utilities to undertake of their own initiative customer ownership campaigns. In fact one particular banking house went so far as to engage a man to devote his entire time to interviewing the executives of companies, the bonds of which it had sold or contemplated selling, with the purpose of explaining to them the advantages of customer ownership. The purpose of this missionary work was undoubtedly prompted by the selfish reason of strengthening the margin of safety of the bonds by inducing the investment of capital junior to the bonds. Yet it is strong evidence that the influence of customer ownership, in improving the stability of the utilities' financial structure, is not in conflict with the best interests of the investment banking fraternity.[i]

Social and Economic Value of Customer Ownership.—Finally there is one value in customer ownership which in the writer's opinion overtops all others. It lies in the social and economic values of a general and widely scattered public investment in industrial enterprises. This value of customer ownership is based on two entirely different grounds. It makes investors or small capitalists of many farmers, wage earners,

---

[i] To improve the financial structure of the utility and to strengthen the bond credit of the utility, to get money invested behind the bonds, is the primary reason that explains why investment bankers favor customer ownership. It put the community's money behind their bonds. They should face this fact and not indulge in a lot of prattle about the utility and its duty to the community. For example, the article by B. C. Cobb appearing originally in the American Bankers Association Journal, and subsequently reprinted, entitled "Why Customer Ownership Benefits the Banker" reminds one of a kindergarten composition in its childish commonplaces and its failure to mention the single outstanding benefit of customer ownership to the investment banker, namely, that of increasing the equity behind the bonds.

---

[5] As the statistical tables are available to the student through the published article referred to in the preceding note they are not repeated here.

small town merchants, and artisans who otherwise would invest, if at all, only in worthless and highly speculative securities. Furthermore, and what would seem a matter of far-reaching consequence, customer ownership allays the danger of municipal ownership of local utilities and combats, by the strongest implement at the command of a democracy, the spectre of socialism.

The wide dissemination of sound utility stocks among farmers, merchants, and artisans is of great public benefit, aside from the advantage to the utility. It forces these classes in the community to acknowledge the important contribution of capital saved to industry and industrial progress. It teaches, by example, the connection between capital and interest, the sacrifice involved in saving and the righteousness of the reward for saving. While this connection may be deducible out of the organization of industry by the theoretical economist it is not evident to the farmer or laborer who has never had forced upon him the exact balance between capital loaned and interest received. Furthermore it helps this class, perhaps the largest in the community, to see the other man's point of view. The public utility business is peculiarly well-adapted to teach the community enlightened business methods. It can teach the point of view of a fair return for the value of the goods sold or of the service rendered—the point of view without which no business can permanently endure. Barring a socialism based on envy and pessimism—states of mind foreign to our Anglo-Saxon traditions—most of the so-called radicalism and communistic tendencies arise from a failure to appreciate the economic functions of capital on the one hand and management on the other. Socialism arises from a false notion of the origin of capital and a false notion of the risks incident to the successful management of business enterprise. If, therefore, large groups of people are forced to become capitalists by the efforts of their utility, and forced to concern themselves with and to appreciate the problems involved in the management of the enterprise in which this capital is placed they are brought face to face with a practical rather than a visionary appreciation of the complex motivation of industry. To be forced to think about all sides of industry is the remedy for radicalism. This is exactly what customer ownership of the local utility accomplishes without embittering the small investor through the loss of his saving in highly speculative enterprises.

APPENDIX TO BOOK IV

A STATISTICAL TEST OF THE SUCCESS OF CONSOLIDATIONS *

Statements concerning the advantages or disadvantages of large scale enterprises brought about through combination—the so-called "trusts"—are ordinarily based on certain theoretical assumptions. These *a priori* assumptions have emphasized the various economies and various wastes which are alleged to accompany consolidation. No attempt, however, has been made to apply specific and definable tests to a sufficiently large collection of actual cases to justify generalizations possessing empirical value. To do this is the purpose of the present study. The consolidations here under review were for the most part organized before 1903. A period of at least ten years elapsed, therefore, between their organization and the economic disturbances caused by the Great War. The period affords ample opportunity to judge of the ultimate success or failure of the trusts, since in that time they should have been able to prove the economic advantages of consolidation.

The specific problem whether or not large combinations of units of production are successful is divisible into two parts: the definition of success and its specific application to the trusts. In order that our study may have an objective standard we must establish some clearly describable criterion of success; and we must be able to apply it to a sufficiently large group of trusts to give the results at least some semblance of inductive value.

The term success when applied to a business may mean a variety of things. A successful business may be one which is conducted so 1) economically that the commodities it deals in reach the ultimate consumer at a low price relative to the competitive cost of production. 2) It may be one that endures through a long period of time. It may be 3) one that grows in mere size without reference to the relative yield to invested capital or to business ability. And finally it may mean—in fact usually does—a business that yields a relatively large profit to the managers. In the end all these usages are reducible to the last. A business cannot long produce or distribute commodities to the consumers at a relatively low price unless it yields a profit to its managers; it cannot long endure unless the activities of a manager are stimulated by liberal profits; it cannot increase in mere size unless the profit is sufficient to encourage the continuous investment of capital. It is difficult, however, to determine that amount of true profit or of return on invested capital which marks the line between success and failure. Both profit and success are relative terms. But they are relative to what?

---

* Article by the author which appeared in *Quarterly Journal of Economics*, November, 1921.

In this study three separate standards of relative profit or relative success are used. I shall assume that an industrial combination, in order to be called successful, (1) should yield a larger net profit than the sum of the net profits of the component elements that entered the combination. This is our first criterion. (2) A second assumption will be that the combination should yield a net profit at least approximately equal to what its proponents, including its bankers, owners, and promoters, estimated that it would yield. (3) And lastly it must be assumed that the average net earnings over a considerable period of time—say ten years—should show a conspicuous increase over the net earnings prior to the combination and during its first year. In other words, there must be a sustained increase. The application of these tests to industrial combinations in general is not as simple as their mere formulation. Something of a more or less arbitrary procedure has to be adopted, involving certain further assumptions. These will be explained in detail as we proceed.

A random selection of 35 industrial combinations was chosen which met the following six conditions. In order to qualify for the group the combination must (1) have been in existence at least ten years before 1914, (2) must have been formed as a combination of at least five separate, independent and competing plants, (3) must have a national rather than a mere sectional or local significance, (4) must have published financial reports in which at least some degree of confidence can be placed, (5) must have available published or accessible reports covering the earnings of the separate plants prior to their consolidation and the estimates of earnings made at the time the combination was effected. Lastly, the group as a whole must represent a wide diversity of industries.

A period of ten years was selected as sufficient to enable the "trust" to develop its weaknesses and its strengths; and cases were omitted from the tabulation when this period extended beyond 1914, since extraordinary profits or extraordinary losses due to the Great War might vitiate the calculation. Again, every effort was made to exclude from consideration all corporations not industrial combinations, strictly speaking. This was done by refusing to consider a business organization as an industrial consolidation unless it represented, at the time of its organization, at least five separate and relatively independent units, all previously competitors of each other. This eliminated from consideration large businesses arising from internal growth, with now and then a sporadic addition from the outside, and those businesses arising from the union of only two or three relatively large units. Such combinations should be considered business expansions rather than industrial consolidations. All purely local combinations having only a local market for their products and only a narrow and restricted market for their securities were left out of account. Furthermore, in order to be included in the group a corporation must have available reliable published reports, covering a period of ten years. These reports must be of such character that the annual earning statements can be reduced to something like a uniform basis.[1] Even with the published reports available it was difficult to standardize the accounts; the necessary assumptions and interpretations will be described under the appropriate headings. Lastly, considerable effort was made to obtain a wide distribution of corporations, in order to ensure representation of many different industries. Aside from the purpose to secure such a wide distribution no effort whatever was made to include corporations known to be either successful or unsuccessful—either those which have attained an investment standing or those which became bankrupt. It will be observed that the list includes some consolidations, like the United States Envelope Company, which have been conspicuous in their able management and their steadily maintained success, and some others, like the American Window Glass Company, which have been equally conspicuous failures. The majority of the corporations, however, are those reported to have attained a modicum of success.

In preparing the tables the most difficult problem was that of reducing the statements of the different corporations to a uniform basis. It was, in fact, the problem of establishing a uniform system for the accounting of net profits. Owing to the meager data ordinarily furnished by the different corporations, especially those obviously unsuccessful, results were obtainable only by using a large amount of guessing. The statements of the previous earnings were, almost invariably, taken from the published reports of accountants, chosen in the majority of cases by the bankers who underwrote the original security issues at the time of promotion. All estimates or predictions of earnings were, except in the cases explained in footnotes, taken from published statements issued by the bankers or the promoters at the time of promotion. Where more than one prediction was made, the lowest and least extravagant statement was used. A few instances were found of estimates of earnings so extravagant and unreasonable that one is reminded of Johnson's phrase about wealth beyond the dreams of avarice. Such cases were disregarded altogether, even though they illustrate the extravagant expectations nurtured by some of the trust promoters. And the fact that the most extravagant predictions were often made in connection with consolidations which later proved utter failures, while not pertinent to the present study, is yet suggestive of the prevailing conception of profits expected through industrial consolidation. The earnings of the first year, as was true of the earnings for the later years, represent the net earnings after taxes and depreciation but before the payment of any interest or dividends. It was generally difficult and sometimes impossible to determine whether or not the company had charged its published net earnings with a reserve for depreciation. When no information of this character was available, the benefit of the doubt was given to the company; that is, it was assumed that the company made proper depreciation charges. In fact, in all cases of uncertainty in the computation of the net earnings the more liberal interpretation was adopted, so that the company was placed in the most advantageous light. The calculation of the average earnings for the first ten years presented no serious problem, except when the date of the beginning of the fiscal year was changed. In such cases the full twelve-month period was computed by a species of dead reckoning. Attention is called to the detailed descriptive notes, indicating the sources of figures and the method of compilation in cases involving some uncertainty. Where there is no reference the figures are taken directly from the annual reports of the corporation.

---

[1] The American Window Glass Company—of which more will be said from time to time—is included notwithstanding the fact that its published reports are inadequate for our purpose. It was included in order that there should be at least one combination allied to the building trades.

Table I gives the primary material on which all the others are based. Deductions from it will be discussed, in connection with the subsequent tables, under three headings: (1) the previous earnings of the separate plants before consolidation in comparison with the earnings after consolidation; (2) the estimated earnings at the time of consolidation in comparison with the earnings after consolidation; and (3) the earnings during the first year in comparison with the earnings during a period of years.

The figures in the tables that follow (Tables II to V) are in the nature of index numbers, being ratios expressed on a basis of 100 between the different figures for each of the 35 corporations. The medians of each group of 35 were computed from these ratios. Certain ratios could not be determined as real integers, because one of the terms was a negative quantity. Other ratios at the extremes of the arrays were very large. For these reasons an inclusive arithmetical average of the entire group of 35 ratios would be meaningless. Accordingly averages were computed of the 21 ratios lying between and including the quartiles. Owing to the relatively close dispersion in most cases on either side of the median these averages are perhaps more significant than the medians themselves. The closeness with which they approximate the medians should be noted in estimating the statistical value of the general conclusions.

I. Previous Earnings before Consolidation Compared with the Actual Earnings Realized

From Table II it will be observed that the aggregate earnings of the separate competing establishments prior to consolidation were seven-tenths of the earnings estimated to follow consolidation. Roughly, the promoters of the consolidations believed that the mere act of combination would increase the earnings by about a half. But in actual results the earnings before the consolidation were nearly a fifth greater (18 per cent) than the earnings of the first year after consolidation. (See also Table V.) The promoters expected the earnings to be a half greater than the aggregate of the competing plants; instead they were about a fifth less. Nor were the sustained earnings an improvement, for the earnings before the consolidation were between a fifth and a sixth greater than the average for the ten years following the consolidation. In brief, the earnings of the separate plants before consolidation were greater than the earnings of the same plants after consolidation.

II. Estimated Earnings at Time of Consolidation Compared with the Actual Earnings Realized (See Tables III and IV)

The estimated probable earnings made by the promoters at the time the trusts were organized can be reached by two lines of evidence—the prophecies of the promoters themselves and the patterns according to which they cut the financial plans of the embryo corporations. The former we can consider the direct line of evidence, the latter the indirect line.

When we compare the estimates of the promoters covering the earnings of the new corporations with the earnings actually realized, some striking results are apparent. See Table III.

So confident were the promoters and bankers of the success of the trusts that they estimated the earnings resulting from consolidation to be a little over a third greater than the earnings of the separate plants before consolidation. On the basis of this estimate they considered themselves safe in making the sum of the fixed charges on the bonds and the dividends on the preferred stock to be less than a half of the estimated earnings. This conservative procedure would have worked well in practice, provided the actual earnings following consolidation had even approximated the estimates made by the promoters. But they did not. The estimated earnings were half again as large as the actual earnings of the first year after the union, and nearly twice as great (175 per cent) as the average earnings during the ten-year period following consolidation. The divergence between the estimates and the actual results is even more apparent when we observe that in only 4 out of the 35 cases did the earnings during the year following consolidation equal or exceed the estimates made by the promoters; and in only 5 cases—one-seventh of the total—did the average earnings for the ten-year period following consolidation equal or exceed the estimates made by the promoters and bankers at the time the trust was organized.

This conclusion is indirectly shown by the relative load of fixed charges and contingent preferred stock dividends placed upon the trusts at the time of consolidation. It is a well-known and thoroughly established principle of financial practice that the fixed interest charges and contingent preferred stock dividends of industrial or manufacturing corporations should not be more than half the net earnings, after reasonable, but not extraordinary, allowances have been made for depreciation and obsolescence. In the case of these industrial combinations it amounted to nearly three-fourths of the net earnings of the first year and the tenth year, and nine-tenths (90 per cent average between quartiles) of the average earnings of the ten-year period after consolidation. See Table IV.

III. Comparison of the Earnings of Industrial Consolidations Immediately After Consolidation with Later Earnings

The ratios given in Table V are intended to compare the earnings of each industrial consolidation during the first full year of its existence with the earnings before consolidation and with the earnings after the trust has been fully established.

The later earnings, however, should be subject to some adjustment. In almost every case new capital was invested by the managers of the consolidation in betterments and improved equipment, not properly chargeable to depreciation and reasonable obsolescence. In some cases, like the acquisition of the Tennessee Coal and Iron Company by the United States Steel or of the Guggenheim plants by the International Steam Pump, whole units were added to the aggregate of property already owned by the trust at the time of its organization. The betterments and the new plants added materially to the net earnings of the combination, or should have done so provided the promise of increased earnings through enlarged scale of production was fulfilled. Strict accounting would require that the average net earnings for the ten-year period and the net earning for the tenth year should be reduced by amounts corresponding to the presumptive earnings of the added capital before these earnings were compared with the earlier earnings. However, such adjustments to the reported net earnings because of actual additions to property would be very difficult to make and controversial at best. Accordingly no such adjustments were made, so that the figures for the ten-year average and of the tenth-year earnings are greater than those of the groups of plants entering the consolidation or contributing to the earnings of the first year.

The representative earnings of consolidation during the first year were less, by about a tenth, than the average earnings during the ten-year period. The ten-year period began, in 20 cases out of the 35 in 1900; it included, therefore, quite as many years of marked business activity as of marked business depression. The earnings of the first year after consolidation were greater—by a little less than a tenth (7 per cent)—than the earnings of the tenth year. In other words, after sufficient time had elapsed to permit the consolidation to perfect its organization, to reconstruct its plants and to effect all the anticipated economies of combination and large-scale production, and after considerable sums of new money had been invested in betterments and new plants, the earnings gradually diminished until they were no more, perhaps a little less, than during the first year of consolidation. And the first-year earnings, as has been shown already, were less than the earnings of the separate plants before consolidation.

TABLE I.—FUNDAMENTAL DATA

	Name	Date Incorporated	Bonds Issued at Incorporation	Preferred Stock	Preferred Stock Dividend	Fixed Charges	Contingent Charges (Preferred Dividends)
1	U. S. Leather	1893	$6,000,000	$62,282,300	8 c*	$ 360,000	$4,982,184
2	Am. Matting	1897	none	2,500,000	7 c	none	175,000
3	Am. Linseed	1898	none	16,750,000	7 n	none	1,172,500
4	U. S. Envelope	1898	2,000,000	3,750,000	7 c	120,000	262,500
5	Inter. Paper	1898	8,699,000	20,530,700	7 c	521,940	1,437,149
6	Am. Agri. Chem.	1899	none	17,000,000	6 c	none	1,020,000
7	Am. Beet Sugar	1899	none	4,000,000	6 n	none	240,000
8	Am. Car & Foundry	1899	none	30,000,000	7 n	none	2,100,000
9	Am. Cement	1899	930,000	none	none	46,500	none
10	Am. Chicle	1899	none	3,000,000	6 c	none	180,000
11	Am. Hide & Leather	1899	8,445,000	13,000,000	7 c	506,700	910,000
12	Am. Pneu. Tube Service	1899	none	5,000,000	6 n	none	300,000
13	Am. Window Glass	1899	none	4,000,000	7 c	none	280,000
14	Am. Woolen	1899	none	16,000,000	7 c	none	1,120,000
15	Am. Writing Paper	1899	17,000,000	12,500,000	7 c	850,000	875,000
16	Inter. Steam Pump	1899	none	8,850,000	6 c	none	531,000
17	Natl. Enam. & Stamp.	1899	none	7,375,000	7 c	none	516,250
18	Natl. Salt	1899	none	5,000,000	7 c	none	350,000
19	N. E. Cotton Yarn	1899	5,591,000	5,000,000	7 c	279,553	350,000
20	Pittsburgh Coal	1899	none	32,000,000	7 c	none	2,240,000
21	Pressed Steel Car	1899	none	12,500,000	7 c	none	875,000
22	Republic Iron & Steel	1899	none	25,000,000	7 c	none	2,750,000
23	Rubber Goods Mfg.	1899	none	6,196,000	7 c	none	433,762
24	Sloss-Sheffield	1899	3,835,000	6,700,000	7 n	202,575	469,000
25	Univ. Bag and Paper	1899	none	11,000,000	7 c	none	770,000
26	Crucible Steel	1900	none	25,000,000	7 c	none	1,750,000
27	Standard Milling	1900	5,750,000	6,900,000	6 n	287,500	345,000
28	Allis Chalmers	1901	none	25,000,000	7 c	none	1,750,000
29	Am. Locomotive	1901	none	25,000,000	7 c	none	1,750,000
30	Quaker Oats	1901	1,600,000	7,500,000	6 c	80,000	450,000
31	U. S. Steel	1901	304,000,000	425,000,000	7 c	15,200,000	29,750,000
32	Harbison Walker Refractories	1902	3,500,000	8,000,000	6 c	175,000	480,000
33	Natl. Candy	1902	none	2,200,000	7 c	none	154,000
34	Inter. Merc. Marine	1902	68,000,000	54,600,000	6 n	3,140,000	3,276,000
35	United Box Board & Paper	1902	3,873,000	14,948,900	7 c	197,380	1,046,423

---

* Under table of preferred stock dividend "c" denotes cumulative dividends and "n" denotes non-cumulative.

TABLE I.—FUNDAMENTAL DATA *(Continued)*

Previous Earnings	Estimated Earnings	Fixed and Contingent Charges	First Year	Tenth Year	Average for Ten Years	
$4,800,000[1a]	$4,900,000[1b]	$5,342,584	$1,340,494[1c]	$4,784,997	$3,753,839[1d]	1
1,300,000[2a]	2,300,000[2b]	175,000	225,000[2c]	−157,503	393,117[2d]	2
1,094,374[3a]	1,800,000[3b]	1,172,000	−1,083,858[3c]	166,538	113,200[3d]	3
428,848[4a]	828,848[4b]	382,500	457,523	573,557	497,375	4
4,100,000[5a]	5,600,000[5b]	1,959,089	2,845,035	1,635,918	2,393,172	5
1,419,879[6a]	2,040,000[6b]	1,200,000	1,615,594[6c]	2,394,498	1,680,238	6
428,045[7a]	1,248,000[7b]	240,000	240,359[7c]	1,470,611	612,313	7
2,900,000[8a]	4,000,000[8b]	2,100,000	4,915,671[8c]	2,895,831	5,050,963	8
323,000[9a]	350,000[9b]	46,500	250,619[9c]	152,352	278,480	9
560,000[10a]	540,000[10b]	180,000	688,510[10c]	1,530,000	1,199,896	10
1,585,748[11a]	2,750,000[11b]	1,416,700	926,582[11c]	2,085,996	1,024,938[11d]	11
281,449[12a]	381,449[12b]	300,000	288,616	144,959	162,316	12
1,466,182[13a]	2,500,000[13b]	280,000	373,357	−556,718[13d]	−13,638[13d]	13
2,593,000[14a]	3,000,000[14b]	1,120,000	3,287,006	4,179,522	2,808,783	14
1,250,620[15a]	2,200,000[15b]	1,725,000	837,997[15c]	1,410,841	1,172,863	15
1,317,791[16a]	2,500,000[16b]	531,000	1,813,907	1,447,653	1,671,440	16
1,073,000[17a]	1,589,250[17b]	516,250	1,442,589[17c]	924,596	1,108,555	17
450,000[18a]	600,000[18b]	350,000	478,145	547,198	680,336	18
1,106,197[19a]	1,600,000[19b]	629,550	1,086,500[19c]	355,602	721,595[19d]	19
4,078,274[20a]	5,414,089[20b]	2,240,000	3,181,568[20c]	1,822,557	3,388,080	20
1,500,000[21a]	3,000,000[21b]	875,000	2,237,000	155,478	1,875,849	21
2,679,000[22a]	3,445,000[22b]	1,750,000	3,643,729	1,629,346	2,013,055	22
1,177,228[23a]	1,200,000[23b]	433,762	629,821[23c]	2,369,972	1,076,308	23
1,355,000[24a]	2,380,000[24b]	671,575	1,100,424[24c]	1,336,947	1,237,965	24
1,226,000[25a]	1,562,000[25b]	770,000	1,494,169	956,920	964,540	25
4,000,000[26a]	4,000,000[26b]	1,750,000	3,250,429[26c]	3,523,402	1,876,704	26
922,873[27a]	1,172,873[27b]	632,500	605,948[27c]	766,737	660,006	27
1,137,500[28a]	3,290,000[28b]	1,750,000	1,442,260	−18,600[28d]	707,945	28
3,000,000[29a]	3,600,000[29b]	1,750,000	3,107,177	4,122,870	4,446,091	29
639,248[30a]	2,000,000[30b]	530,000	540,745	1,780,095	1,052,579	30
108,000,000[31a]	100,000,000[31b]	44,950,000	98,551,542[31c]	107,830,000[31d]	92,931,854[31d]	31
806,572[32a]	1,116,000[32b]	655,000	1,036,489[32c]	1,325,549	1,401,543	32
335,000[33a]	465,277[33b]	154,000	175,655[33c]	168,255	247,556	33
6,107,675[34a]	16,100,000[34b]	6,416,000	4,000,522[34d]	3,941,747[34d]	3,439,514[34d]	34
1,667,000[35a]	1,872,000[35b]	1,243,803	279,710[35c]	182,874	282,282	35

3 much better off 90 90
9 a little better off 75 90
23 worse off 66
35

NOTES FOR TABLE I

1*a*. Prospectus of company. See Dewing, A. S., Corporate Promotions and Reorganizations, 21.

1*b*. This is one of the three cases in which the estimate of earnings was not obtained from printed sources. One of the tanners stated in conversation that the "net saving would be at least $300,000, which would result in increased profits." On this basis the estimated earnings were obtained by adding the "previous earnings" to $100,000. Unquestionably the tanners believed that the profits would be vastly larger. They planned numerous "economies," and laid great stress in their conversations with bankers upon the increased earnings following the suspension of competition. The figure used here is, therefore, very much less than that confidently expected by the promoters. See also *ibid.*, 21.

1*c*. This represents the first full year. 60 Commercial and Financial Chronicle 391. (The references to this periodical will be abbreviated hereafter, Chron.)

1*d*. In computing the average, the published earnings for the first 20 months were reduced to a 12-month basis. This gave the constructive earnings of the first year as $472,053. This reconstruction was necessitated by the change in the corporation's fiscal year. See table of earnings, Dewing, Corporate Promotions and Organizations, 22, footnote 3.

2*a*. Average of the preceding five years, 65 Chron. 619.

2*b*. *Ibid.*

2*c*. Dewing, Corporate Promotions and Reorganizations, 294, footnote 1.

2*d*. Earnings for third year, adjusted owing to change in fiscal year.

3*a*. Average of preceding four years, 67 Chron. 1206.

3*b*. Estimate of "$1,800,000 to $2,000,000." *Ibid.*

3*c*. Computed by adding five-twelfths of the profits of 1900 to the deficit for the 7 months of 1899 during which company operated.

3*d*. From 1902 to 1909 the company published no reports. The probable profits have been constructed from the surplus as at the beginning and end of the period, with adjustments for capital expenditures during the intervening period.

4*a*. 66 Chron. 1003.

4*b*. *Ibid.*

5*a*. 67 Chron. 177.

5*b*. 13 U. S. Ind. Com. of 1901, 409.

6*a*. Average preceding five years, 68 Chron. 974.

6*b*. This is the second of the three cases in which the estimate of earnings is not obtained from printed sources. It is based on two statements, both agreeing that the company would be able to earn at least 6 per cent on its common stock. One of these statements was made by a prominent manufacturer to a small independent who was asked to enter the consolidation. One other was made to a banker by a man close to the promotion.

6*c*. Adjusted to 12 months from published statement of 14 months.

7*a*. Average preceding two years, 68 Chron. 280.

7*b*. *Ibid.*

7*c*. Adjusted to 12 months from published statement of 21 months.

8*a*. 68 Chron. 1029.

8*b*. 68 Chron. 280.

8*c*. Adjusted to 12 months from published statement of 14 months.

9*a*. 69 Chron. 1249.

9*b*. *Ibid.*

9*c*. Adjusted to 12 months from published statement of 16 months.

10*a*. 68 Chron. 1021.

10*b*. *Ibid.*

10*c*. From published statements the earnings for the first period of 13 months were constructed. This figure was then adjusted to a 12-month basis.

11*a*. 70 Chron. 77.

11*b*. 69 Chron. 646. More extravagant estimates were made by the promoter. One Thomas J. Ryan, in Shoe and Leather Reporter, May 18, 1899, estimated "economies of consolidation" at $4,000,000; in *ibid.*, May 24, 1899, $5,300,000 to $6,900,000 or "7% on the preferred and from 8% to 12% on the common stock."

11*c*. Adjusted to 12 months from published statement of 9 months.

11*d*. The sinking fund on the bonds was deducted, as was not done in other cases, from the net earnings because the management and its auditors specifically state that the sinking fund on the bonds was a charge in lieu of depreciation.

12*a*. Given at $300,000 in 68 Chron. 1130. Figure stated above taken from banker's circular, at time of promotion.

12*b*. Banker's circular at time of promotion.

13*a*. Average for preceding three years, 69 Chron. 745.

13*b*. 69 Chron. 745.

13*d*. The company published no reports from 1902 to 1909, due probably to the excessive losses it was enduring. On September 1, 1902, the report showed an apparent surplus of $819,862. On September 1, 1909, the report showed an apparent deficit of $3,067,165. The above average is based on the assumption that the net loss of $3,897,027 during the intervening seven years can be prorated—$556,718 average loss per year.

14*a*. 68 Chron. 472.

14*b*. This is the third of the three cases in which the estimate of earnings is not obtained from printed sources. The bankers who were interested in the underwriting of the securities were assured by the mill operators that the company would earn "6% on its common stock" and would probably do better. This estimate is, therefore, computed as the preferred dividend of 7 per cent together with a common dividend of 6 per cent.

15*a*. Average for the preceding ten years, 69 Chron. 128.

15*b*. 69 Chron. 128.

15*c*. Adjusted to 12 months from published statement of 17 months.

16*a*. 1900 Moody 617.

16*b*. 68 Chron. 723.

17*a*. 68 Chron. 187.

17*b*. *Ibid.*

17*c*. Adjusted to 12 months from published statement of 11 months.

18*a*. 68 Chron. 524.

18*b*. *Ibid.*

19*a*. 69 Chron. 81; Dewing, Corporate Promotions and Organizations, 316.

19*b*. *Ibid.*

19*c*. Adjusted to 12 months from published statement of 11½ months.

19*d*. Computed from successive published balance sheets. Sinking fund on bonds deducted from net earnings as company considered such charges were made in lieu of depreciation.

20*a*. 69 Chron. 442.

20*b*. *Ibid.*

20*c*. Adjusted to 12 months from published statement of 16 months.

21*a*. 68 Chron. 131.

21*b*. *Ibid.*

22*a*. 68 Chron. 674.

22*b*. *Ibid.*

23*a*. 68 Chron. 872.

23*b*. *Ibid.*

23*c*. Adjusted to 12 months from published earnings of 11 months.

24*a*. 69 Chron. 286.

24*b*. 8 Ind. Com. Rep. of 1901, 55.

24*c*. 72 Chron. 774.

25*a*. 68 Chron. 333.

25*b*. *Ibid.*

26*a*. 73 Chron. 841.

26b. 71 Chron. 32. "Confidently expected earnings will be largely increased." This was the current report in the Pittsburgh district. One rumor stated that the earnings would be "twice as great." Nevertheless, in the absence of direct evidence for a larger estimate, the estimated earnings were considered the same as the previous earnings.

26c. Adjusted to 12 months from published earnings of 13 months.

27a. 68 Chron. 929.

27b. *Ibid.*

27c. 75 Chron. 1252. Reference inexact "12 to 14 mos." Computed on average of 13 months and reduced to 12 months basis.

28a. 72 Chron. 874.

28b. 72 Chron. 937.

28d. Boston News Bureau, October 12, 1911—after allowing for depreciation.

29a. 72 Chron. 1036.

29b. Boston News Bureau, November 14, 1901.

30a. 68 Chron. 329.

30b. *Ibid.*

31a. Wilgus, United States Steel Corp., 33.

31b. 72 Chron. 441.

31c. Adjusted to 12 months from published earnings of 9 months.

31d. The computation of the United States Steel Corporation's "net earnings" has always presented considerable difficulties owing to the management's avowed purpose of charging capital betterments to earnings. Wall Street has interpreted this policy as "squeezing out the water." Expedient though it may be from the standpoint of business, it is disconcerting to the statistician, especially in an inquiry like the present, where uniformity in methods of accounting is a prerequisite to the value of any of the conclusions. In this study the net earnings of the United States Steel Corporation were computed as the sum of: surplus for the year, sinking fund on subsidiary and parent bonds and interest of United States Steel Company bonds, expenditures made for additional property, preferred and common stock dividends.

32a. 74 Chron. 1359.

32b. *Ibid.*

32c. Adjusted to 12 months from published earnings of 15 months.

33a. Average of three years, 75 Chron. 983.

33b. Estimate computed from estimated capacity (75 Chron. 983) reduced to current basis of profit.

33c. Adjusted to 12 months from published earnings of 15 months.

34a. 76 Chron. 975. In 79 Chron. 157, it is stated that the average for the preceding 5 years, before depreciation, was $6,519,017. Also, by dead reckoning, the estimated earnings would appear to be $9,500,000, provided tonnage of 1903 had been in service.

34b. Ripley, W. Z., Trusts, Pools and Corporations, 107.

34d. These are based on the published earnings. Later the management admitted that the depreciation reserves had been inadequate and charged off a lump sum from the excessive earnings of the Great War. An attempt was made in another connection to determine the earnings more accurately by prorating the depreciation. The largest published earnings, however, were used here so as to give the corporation the benefit of a possible doubt. See Dewing, Financial Policy of Corporations, vol. 4, 683.

35a. Average of preceding three years, 75 Chron. 247.

35b. 75 Chron. 1044.

35c. Adjusted to 12 months from published earnings of 5 months, 6 days.

TABLE II.—EARNINGS OF THE SEPARATE PLANTS BEFORE CONSOLIDATION COMPARED WITH EARNINGS AFTER CONSOLIDATION

TABLE III.—PROMOTERS' ESTIMATES OF EARNINGS COMPARED WITH PREVIOUS AND LATER EARNINGS

		Previous to Estimated Earnings	Previous to Sum of Fixed and Contingent	Previous to First Year	Previous to Tenth Year	Previous to Ten-Year Average	Estimated to Previous	Estimated to Sum of Fixed and Contingent	Estimated to First Year	Estimated to Tenth Year	Estimated to Ten-Year Average
1	U. S. Leather	98.0	90.0	large	100.3	128.0	102.1	91.6	large	102.4	132.4
2	Am. Matting	56.5	743.1	577.5	large	330.8	177.0	1314.0	1022.2	large	585.0
3	Am. Linseed	60.8	93.3	large	658.0	966.0	164.5	153.3	large	108.2	1589.0
4	U. S. Env	51.7	111.8	93.9	74.9	86.2	193.2	216.5	181.1	144.5	166.7
5	Inter. Paper	73.3	209.3	144.1	250.9	171.5	136.6	285.9	196.8	342.5	234.1
6	Am. Agr. Ch	69.6	118.2	87.8	59.3	84.5	143.7	170.0	126.3	85.2	121.5
7	Am. Bt. Sug	34.3	178.4	178.6	29.1	70.0	291.0	520.0	519.6	84.8	203.9
8	Am. Car & F	72.6	138.1	58.9	100.1	58.5	137.9	190.5	82.4	138.1	79.2
9	Am. Chem	92.3	69.0	128.8	212.2	115.9	108.6	752.9	139.6	229.8	125.6
10	Am. Chicle	105.7	311.0	81.4	36.6	46.7	96.5	300.0	78.4	35.3	45.0
11	Am. H. & L	57.7	112.0	171.2	75.9	154.8	173.5	194.1	297.0	131.8	268.5
12	Am. Pn. T. S	73.8	93.7	98.0	194.2	173.1	135.6	127.2	132.1	263.2	235.0
13	Am. Win. G	58.7	523.6	393.1	large	large	171.0	893.5	669.1	large	large
14	Am. Woolen	86.4	231.2	78.9	62.0	92.4	115.7	267.9	91.3	71.7	107.1
15	Am. Wr. Paper	56.9	72.5	149.5	88.7	106.6	175.9	127.5	262.9	155.9	188.7
16	Int. St. Pump	52.7	248.0	72.6	91.1	78.7	190.0	471.6	137.8	172.9	149.5
17	Nat. En. & St	67.5	208.1	74.4	116.2	89.6	148.0	307.5	110.1	172.0	132.5
18	Nat. Salt	75.0	128.6	93.1	82.2	66.1	133.5	171.5	125.6	109.6	88.3
19	N. E. Cot. Yn	69.1	176.0	101.8	311.8	153.5	144.7	254.2	147.2	451.1	222.0
20	Pitts. Coal	75.3	182.0	128.1	223.9	120.4	132.9	241.9	170.2	297.6	159.9
21	Pr. Steel Car	50.0	171.3	67.1	9.6	79.8	200.0	343.0	134.4	1930.5	160.1
22	Rep. Ir. & St	74.8	147.5	70.7	158.3	128.1	128.7	197.1	94.6	211.7	171.2
23	Rub. Gds. Mfg	98.3	272.0	187.1	49.7	109.3	102.1	277.0	190.8	50.7	111.5
24	Sloss-Sheff	56.9	201.9	123.1	101.3	109.5	175.5	354.5	216.3	178.1	192.5
25	Univ. Bg. & P	78.5	159.3	82.2	129.5	128.5	127.5	202.9	104.5	165.2	162.1
26	Cruc. Steel	100.0	228.5	123.0	113.4	213.0	100.0	228.3	123.0	113.5	213.2
27	Stand. Mill	78.6	146.1	152.2	120.4	139.6	127.2	185.4	193.5	152.9	177.7
28	Allis Chalmers	34.6	64.9	78.8	large	160.6	289.0	188.1	227.9	large	464.9
29	Am. Locomotive	83.3	171.6	96.5	72.8	67.5	120.0	205.9	115.8	87.3	81.0
30	Quaker Oats	32.0	120.8	118.2	35.9	60.8	312.9	377.6	370.0	112.2	189.9
31	U. S. Steel	108.0	240.3	109.6	100.1	116.2	92.6	222.5	102.9	92.7	107.8
32	Harb. W. Refr	72.7	123.0	77.8	60.8	57.5	138.5	170.5	108.6	84.2	79.8
33	Nat. Candy	72.0	218.5	191.0	199.1	135.4	138.9	302.2	265.2	277.0	188.4
34	Int. Mer. Mar	37.9	95.3	152.6	154.9	177.1	263.9	251.1	402.7	408.0	467.0
35	Un. Box B. & P	89.0	134.1	596.0	912.5	588.5	112.4	150.3	669.2	102.3	662.0
Median		72.6	171.3	118.2	101.3	116.2	138.5	228.3	147.2	165.2	171.2
Average between quartiles		70.1	166.8	118.5	122.4	118.5	145.0	239.4	186.1	189.2	174.8

13

Table IV.—Comparison of the Sums of the Fixed and Contingent Charges, with the Previous, the Estimated and the Later Earnings

		Sum of Fixed and Contingent to Previous	Sum of Fixed and Contingent to Estimated	Sum of Fixed and Contingent to First Year	Sum of Fixed and Contingent to Tenth Year	Sum of Fixed and Contingent to Ten-Year Average
1	U. S. Leather........	111.2	109.0	large	111.6	142.4
2	Am. Matting........	13.5	7.6	77.7	large	44.5
3	Am. Linseed.........	107.1	65.2	none	732.5	1039.0
4	U. S. Env...........	89.8	46.4	84.3	67.2	77.3
5	Inter. Paper.........	47.8	35.0	68.8	119.7	83.9
6	Am. Agr. Ch.........	84.8	58.9	74.6	50.3	71.6
7	Am. Bt. Sug.........	56.0	19.2	99.9	16.3	39.2
8	Am. Car & F........	72.4	52.5	42.7	72.5	41.5
9	Am. Chem...........	14.4	13.3	18.6	30.5	16.7
10	Am. Chicle..........	32.1	33.3	26.1	11.8	15.0
11	Am. H. & L.........	89.2	51.5	152.9	68.7	138.3
12	Am. Pn. T. S........	106.6	78.7	104.7	207.1	184.7
13	Am. Win. G.........	19.1	11.2	75.1	large	large
14	Am. Woolen.........	43.2	37.3	34.1	26.8	39.9
15	Am. Wr. Paper.......	138.0	78.3	205.9	122.1	147.1
16	Int. St. Pump........	40.3	21.2	29.3	36.7	31.8
17	Nat. En. & St........	48.0	32.4	35.7	55.8	43.1
18	Nat. Salt............	77.8	58.3	73.2	64.0	51.4
19	N. E. Cot. Yn.......	56.8	39.4	57.9	177.3	87.3
20	Pitts. Coal...........	54.8	41.3	70.3	122.8	66.1
21	Pr. Steel Car.........	58.3	29.2	39.1	563.0	46.7
22	Rep. Ir. & St........	65.3	50.8	48.0	107.4	86.9
23	Rub. Gds. Mfg.......	36.8	36.1	68.9	18.3	40.3
24	Sloss-Sheff...........	45.5	25.9	56.0	50.3	54.3
25	Univ. Bg. & P.......	62.8	49.2	51.5	80.5	79.8
26	Cruc. Steel..........	43.8	43.8	53.8	49.7	93.2
27	Stand. Mill..........	68.5	53.9	104.4	82.5	95.8
28	Allis Chalmers.......	153.9	53.2	121.1	large	247.1
29	Am. Locomotive.....	58.3	48.6	56.3	42.4	39.4
30	Quaker Oats.........	82.9	26.5	98.1	29.6	50.3
31	U. S. Steel..........	41.6	45.0	45.7	41.7	48.4
32	Harb. W. Refr.......	81.3	58.7	63.2	49.4	46.7
33	Nat. Candy..........	45.9	33.1	87.7	91.5	62.2
34	Int. Mer. Mar.......	105.0	39.9	160.4	162.8	186.5
35	Un. Box B. & P......	74.6	66.3	444.0	690.0	439.2
Median		58.3	43.8	70.3	72.5	71.6
Average between quartiles		62.7	43.4	72.3	72.1	90.1

Table V.—Comparison of the Earnings of the First Year with the Previous Estimated and Later Earnings

		First Year to Previous Earnings	First Year to Estimated Earnings	First Year to Sum of Fixed and Contingent Ch'ges	First Year to Tenth-Year Earnings	First Year to Ten-Year Average
1	U. S. Leather........	small	small	small	small	small
2	Am. Matting........	17.3	9.8	128.5	large	57.2
3	Am. Linseed.........	small	small	small	small	small
4	U. S. Env...........	106.9	55.2	119.5	79.8	92.0
5	Inter. Paper.........	69.5	50.8	145.2	174.1	119.0
6	Am. Agr. Ch.........	113.9	79.2	134.7	67.5	96.2
7	Am. Bt. Sug.........	56.2	19.3	100.3	16.4	39.4
8	Am. Car & F........	169.6	122.9	234.2	169.8	97.5
9	Am. Chem...........	77.7	71.7	539.0	164.6	90.0
10	Am. Chicle..........	121.9	127.4	382.5	45.0	57.4
11	Am. H. & L.........	58.4	33.7	65.4	44.4	90.4
12	Am. Pn. T. S........	102.6	75.5	96.3	199.2	177.9
13	Am. Win. G.........	25.5	14.9	133.5	small	small
14	Am. Woolen.........	126.9	109.6	298.8	78.7	117.1
15	Am. Wr. Paper.......	67.1	38.1	48.6	59.4	71.4
16	Int. St. Pump........	137.7	72.6	361.1	125.4	108.5
17	Nat. En. & St........	134.3	90.8	279.8	156.2	120.4
18	Nat. Salt............	106.2	79.7	136.6	87.5	70.3
19	N. E. Cot. Yn.......	98.4	68.0	172.9	306.5	150.7
20	Pitts. Coal...........	78.0	58.8	142.0	174.6	93.9
21	Pr. Steel Car.........	149.0	74.5	255.7	1437.0	119.1
22	Rep. Ir. & St........	136.2	105.8	208.4	223.9	181.2
23	Rub. Gds. Mfg.......	53.4	52.5	145.0	26.6	58.4
24	Sloss-Sheff...........	81.3	46.3	164.1	82.3	89.0
25	Univ. Bg. & P.......	121.8	95.7	194.1	156.2	155.0
26	Cruc. Steel..........	81.3	81.3	185.9	92.2	173.5
27	Stand. Mill..........	65.8	51.7	95.8	79.1	91.9
28	Allis Chalmers.......	126.8	43.8	82.4	large	203.8
29	Am. Locomotive.....	103.6	86.3	177.7	75.3	69.9
30	Quaker Oats.........	84.7	27.1	102.2	30.4	51.5
31	U. S. Steel..........	91.1	98.6	219.1	91.3	106.1
32	Harb. W. Refr.......	128.6	92.8	158.3	78.2	73.9
33	Nat. Candy..........	52.4	37.8	114.0	104.5	71.0
34	Int. Mer. Mar.......	65.6	24.8	62.4	101.5	116.5
35	Un. Box B. & P......	16.7	14.9	22.4	152.2	98.7
Median		84.7	58.8	142.0	91.3	91.9
Average between quartiles		89.4	60.7	145.1	107.8	89.6

BOOK V

FAILURE AND REORGANIZATION

CHAPTER I

THE PROBLEM OF REORGANIZATION[a]

When a corporation fails or becomes embarrassed, its financial plan is usually remolded. This is reorganization. It is a redrawing of the financial plan, but with a view to contraction, not to expansion. Whether the new plan provides for decrease or increase in size, new money is required; but an expanding and profitable business may ordinarily solicit new capital on the basis of its past success, whereas a bankrupt business secures capital only through coercion. Unwillingly its security holders add more money merely to save that already invested. So easy is it to obtain money for the expansion of a successful business by one of several ways, that the question is merely one of financial expediency; so difficult is it, on the other hand, to obtain the money necessary to reorganize an unsuccessful corporation, that the success of the reorganization depends primarily on selecting that plan which shall achieve this one end with the least friction.

The Most Intricate Phase of Financing.—Owing to the delicacy of the situation and the judgment required, corporate reorganization is the most intricate phase of the whole field of finance, and the one in which generalizations and precedents are least significant. It is a subject which has as its elements a mass of conflicting legal precedents, the makeshifts of mere temporary expedients, and, permeating the whole, the psychological bias and prejudices of thousands of dissatisfied human beings whose interests are in fundamental conflict. The primary purpose of every reorganization is justice to all concerned. But the justice is tempered—one might almost say obscured—by motives of expediency. Compulsion is exerted at one or more points. This requires the arm of the law; yet the whole subject is so new that there are few laws to cover it although certain states—notably New York, Pennsylvania, New Hampshire and West Virginia—have special statutes affecting reorganizations. Even then, however, a state statute may be in direct conflict with an otherwise expedient reorganization.[b] Moreover, even when the statutory law presents no difficulties, there are always conflicting precedents and legal opinions. In addition to the legal aids and impediments, there are important financial questions of mere judgment—the ease with which an underwriting may be obtained, to what extent the stockholders may be counted on to add money, what may be the opportunity for selling bonds during the first year of the new company's life. In answering these questions in any one particular case, precedents are of little value. Each reorganization is different from all that have occurred before in one or more important respects. And some particular may be such as to require that a plan, otherwise practical, be set aside. The only general principles, therefore, that one can formulate are at most approximate summaries having little more than an historical significance.

---

[a] In this Book the term "reorganization" does not include those corporate changes which result from governmental suit brought under the Sherman Act of 1890, or the English common law of restraint of trade. Nor does it include those reorganizing changes resulting from the union of a group of successful or partially successful competitive units into a single organization. If cases arise that make it necessary to use the term in a significance that includes any such instances, the fact will be clearly indicated.

The ablest practical master of reorganizations we have ever had remarked: "You may deduce rules of law easily enough, but it is not as easy to deduce rules of business having a general application, except a very few simple ones; for a reorganization is a mass of details, differing in each instance, varying with all the conditions, presenting novel questions of finance, often wholly unanticipated. If in your own minds you may think at times that you have evolved some important general principles to be followed, you will probably find it wise to forget them on the first occasion when you attempt to apply them." [1]

---

[b] Thus Texas had a law permitting purchasers of railroads to form *one* corporation to take over all the assets, claims, and the like of another. (Revised Statutes, Sec. 4359.) The old Houston and Texas Central Railway was sold in two parcels and thus disintegrated into two railways. The law required one corporation for successor, and as here were two, the law had to be changed to meet the difficulty.

Important Branch of Finance.—Yet in spite of the intricacy of the subject, it is one of the most important in the field of finance. In the past, hundreds of millions of dollars of actual property investment have been involved in reorganizations. Great railroad systems like those of the Atchison and the Reading,[2] great traction systems like those of the New York City and Chicago surface lines, great manufacturing industries like that of the Westinghouse Company, involving thousands of laborers and the production of necessities of modern civilization, have all been subjected to the uncertainties of reorganization. These enterprises have involved much more than the mere fortunes of the wealthy; they have been concerned with the savings of a great multitude of people, including the very poor. Frequently the savings of a man's lifetime have been jeopardized by a single man's interpretation of justice in a reorganization plan. Probably the ablest men in law, finance, and productive industry have given some of their best efforts to the solution of the intricate problems involved. The regrettable feature is that in spite of all precedents, each new reorganization is quite as perplexing as those that have gone before. Certainty and permanence in the theory and practice of corporate reorganization constitute as yet an unattained ideal.

Occasion for Reorganization.—The reorganization of a large corporation is the result of failure.[c] This failure is dis-

---

[c] Cravath qualifies this generalization, when he says, "Corporate reorganizations usually, though not always, follow, and are based upon, the foreclosure of mortgages or the enforcement of the rights of creditors in

---

[1] Joline, A. H., Lectures delivered before the Graduate School of Business Administration, Harvard University (1909).

[2] Between 1884 and 1899, a period of fifteen years, 521 railroad corporations were put into the hands of receivers. In the aggregate they controlled 78,582 miles of line, with over five billion dollars capitalization, divided about equally between stock, and bonds. Figures given in Poor's Manual of Railroads, lxxi (1900).

tinctly different from that of a partnership. In the latter case the business would ordinarily have no bonded debt, and the bank and merchandise creditors would either force the business to liquidate, or else compel the partners to offer some plan involving the partial or complete payment of the debts. The case of the small corporation is similar. In the case of a large corporation, on the other hand, there are many different persons interested in the business. It is a complex organization. No one is personally liable for the debts in case, on liquidation, the business does not sell for the amount of its liabilities. Furthermore, the large business has usually valuable intangible assets such as good-will, which retain a value only if the business is continued. So that even when it appears that the business may be disintegrated, and the parts sold for an amount sufficient to meet the creditors' claims, the stockholders themselves will probably deem it expedient to invest sufficient new money to pay these claims immediately, and thus save the business and its organization from complete disruption. In this way a new or reorganized business, free from immediate embarrassment, starts with the same stockholders as the old.

If the corporation furnishes a public service, it cannot be closed up, even if the various parties concerned are willing. The courts take the attitude that a railroad, an electric light or a gas plant supplies a public necessity, and that the rights of the public come before the wishes of the stockholders or even the debts of the creditors. Except in extreme cases,

---

some form," but the context shows clearly that he is considering the legal rather than the economic aspects of corporate reorganizations.[3]

This emphasis on failure is evident in a lecture by Thomas W. Lamont in which he said that a reorganization might imply "a decision, brought about usually by a company's success, to enlarge it, to recapitalize it, or to amalgamate it with some other corporation or corporations. But such a reorganization falls more properly under the head of combinations and consolidations. We shall confine ourselves to the reorganizations that are brought about by unsuccess, failure and even bankruptcy."[4] The tendency of business and legal usage during the ten years since this statement was made is to confine the term more and more to cases of "unsuccess."

---

[3] See Cravath, P. D., in Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 154 (1917).

[4] Lecture before Graduate School of Business Administration, Harvard University (February 5, 1909).

when there is abundant evidence to show that there exists no public need, the courts will insist that the embarrassed corporation shall operate its trains or its lighting plant through the agency of a receiver, and that its stockholders and creditors shall ultimately adjust their difficulties and reorganize the corporation so that it may continue its business as a solvent and progressive enterprise. The court may even issue securities in the name of its receiver which take precedence over the claims of every creditor of the corporation; it may decide which creditors' claims shall be paid and which shall not; and it may otherwise conduct the business in an arbitrary manner, provided such usurpation of power is necessary to safeguard the interests of the public. From all these causes the probability is very slight that an unprofitable or bankrupt business, meeting an obvious need of the public, will be disintegrated and the parts sold;[d] it will be voluntarily or forcibly reorganized.

Difficulty of Definition.—It is extremely difficult to formulate an adequate definition of corporate reorganization which shall include neither too little nor too much.[e] It is more than

---

[d] There are, certainly, exceptions. Even railroads have been torn up and the parts sold, but the instances represent railroads for whose existence there was no obvious economic or social excuse.

[e] Financial literature is full of definitions of reorganization, most of which apply intentionally to a specific group of corporations. Perhaps the best, although rather cumbersome, is that of Cravath: "The term 're-organization,' as applied to corporations, may somewhat loosely be defined as the rearrangement of the financial structure of an incorporated enterprise, rendered necessary by insolvency or by the inability of the corporation to secure funds for its operations because of obstacles resulting from its financial structure."[5]

Similar definitions are: "Reorganization may be said to consist of the rehabilitation of an insolvent business through the adoption of a new financial plan."[6] "The reorganization of a bankrupt corporation is a settlement of the claims of the different parties in interest on such a basis that the property can be released by the court and again managed as a going concern."[7]

Specific definitions of railroad reorganization are more numerous. Some of them err in being so specific as to exclude many cases of un-a mere extension or contraction of capitalization, yet it does not include every recasting of the financial structure of a corporation. In common usage the term implies a redrawing of the financial structure of a corporation in consequence of threatened or actual insolvency. That is as clear a definition as one may give. More exhaustive definitions quite generally are useless, unless restricted to special forms of corporate enterprises, which renders them of no value when applied to corporations in general. Gradually the term "reorganization" is being more and more restricted to those cases of comprehensive financial readjustment adopted in the presence of real or threatened financial embarrassment, in order that the busi-

---

[5] Cravath, P. D., in Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 154 (1917).

[6] Walker, W. H., Corporation Finance, 311 (1917).

[7] Mead, E. S., Corporation Finance, 427 (1915).

---

doubted reorganization, as for example: "The term 'reorganization' is used in this study to denote the exchange of new securities for the principal of outstanding, unmatured, general mortgage bonds, or for at least 50 per cent of the unmatured junior mortgages of any company, or for the whole of the capital stock."[8]

In the course of an able discussion of the current definitions of railroad receivership and reorganization, Ripley describes reorganization as "the financial readjustment or settlement necessary for the restoration of peace and order, generally through the re-establishment of a proper equilibrium between income and outgo."[9] Another definition of railroad reorganization is: "A comprehensive change of the financial plan, necessitated by impending or actual failure, such that the fixed charges are reduced and new money supplied through the sacrifices of security holders."[10]

Cleveland and Powell restrict railroad reorganizations to "those proceedings by which the affairs of a corporation are closed out through judicial sale and taken over by a new corporation."[11] It is probable that this is too narrow for even railroads. It certainly is, for all corporate reorganizations.

With special reference to the complexities and varieties of industrial reorganization, the following was used: "A corporate reorganization is the form of financial readjustment adopted in the presence of real or threatened financial trouble, in order that the business of the corporation may be continued under more favorable conditions."[12]

One writer seeks to confine the term to these cases of actual foreclosure. "When they (extraordinary changes which may take place in the financial plan) accompany foreclosure we say the corporation has gone through a 'reorganization.' If the change in the plan of capitalization takes place as a result of insolvency without foreclosure, we may say that the corporation has undergone a 'readjustment of the capital account.'" If this distinction were accurate, one could not call the Baltimore and Ohio and Westinghouse reorganizations by that name—which is certainly contrary to customary practice.

---

[8] Daggett, S., Railroad Reorganization, 335 (1908).
[9] Ripley, W. Z., Railroads, Finance and Organization, 372 (1915).
[10] Dewing, A. S., 8 Am. Econ. Rev. 778 (Dec. 1918).
[11] Cleveland and Powell, Railroad Finance, 249 (1912).
[12] Dewing, A. S., Corporate Promotions and Reorganizations, 7 (1914).

ness of the corporation may be continued under more favorable conditions.

Two Stages in Reorganization.—Although the period of reorganization is frequently long extended, it is usually possible to distinguish two distinct stages. The first is the diagnosis of the corporate malady, represented by the period required for the investigation and isolation of the causes that led to the financial disaster. The second is the reorganization proper, in which some plan is agreed upon and finally carried into execution. The next succeeding chapter discusses the more frequent and potent causes of failure, and the succeeding chapters deal with the reorganization proper, its procedure, the conditions for its success, and the typical plans that have been used in the past for railroad and industrial reorganizations.

To here Feb. 1
for [illegible]

CHAPTER II

CAUSES OF FAILURE

Superficial vs. Fundamental Causes.—In discussing the causes of corporate failure, it is convenient to distinguish between three phases of the general subject—① the fundamental causes of failure, ② the superficial causes or conditions, and the ③ outward signs. These three are usually confused, even by economists. We may go even further and say that ordinarily neither the men who are responsible for the business failure nor the financial experts who constitute themselves an investigating committee, ever note the important difference between the fundamental and abiding causes of financial distress, and the mere external symptoms that stand out clearly in the foreground. Business men are usually unreflective—in a very true sense, that makes them aggressive and quick of response, because action is not imperiled by irresolution. It does not, however, make them successful in diagnosing their own troubles or those of their associates. They cannot see the causes of business failure in their true perspective.

For the present analytical purpose it is preferable to consider first the fundamental causes of business failure, and from these move outward to their more external conditions and effects. One of the most significant criticisms advanced by the Austrian school against the classical economic theories of Mill and Cairns was that economic values cannot be isolated from their setting, but on the contrary, are superimposed on psychological values. Nowhere is this truer than in the matter of business success and failure, for, after the most exhaustive and illuminating analysis of economic causes, there must stand out always the fact that a business fails because the managers do not possess the necessary intuitive skill, foresight, initiative, perseverance, and intellectual power to compel its success. Any discussion of economic advantages or disadvantages must be subordinate to the conscious recognition of personal characteristics.

Four Fundamental Causes.—Yet, recognizing fully these psychological conditions leading to failure, one may still speak of fundamental economic causes, in the sense of economic conditions which will, under the leadership of any but a business genius, lead to failure. In this category may be included four—①excessive competition, ②unprofitable expansion, ③a change in the public demand for the commodity, and ④the distribution of capital as ostensible profit.[a]

Competition.—Competition is a necessary and wholesome element in all business enterprise. Within broad limits, the keener the competition, the greater will be the business efficiency and the higher the range of executive ability required for success. It becomes a true cause of failure only when it becomes so keen that the most efficient competitors are required to sell at less than cost. In the case of a business requiring

---

[a] As a preface to the survey of corporate reorganization, other writers have emphasized other causes and conditions of failure. Surveys of the causes underlying railroad failure have been very common. One of the earliest was that of Simon Sterne who laid stress on the under-maintenance of new roads built from the sale of high interest-bearing bonds and running through undeveloped country.[1] He discussed the same subject some four years later after the failures accompanying the panic of 1893 and found the chief cause to be in the inadequate number of able railroad entrepreneurs.[2] One of the latest discussions is that of Ripley, who finds four reasons for railway failure—over-expansion, over-capitalization, fraud, and internal dissension.[3] In a remarkably keen analysis of the Rock Island Railroad's financial distress, written when its reorganization was a matter of public discussion, Theodore Prince states four causes for the bankruptcy of railroads: (1) decrease in earnings owing to decreased efficiency or decrease of business; (2) increase of fixed charges at a rate more rapid than the increase of earnings; (3) under-maintenance; (4) unfortunate investments.[4] In the industrial field, the favorite explanation of failure is over-capitalization. The deflection of earnings to the payment of capital charges has been given as a chief cause.[5] It is probably impossible to classify business failures with sufficient precision to bring to light a series of elementary causes so clearly defined that all students will agree upon them.

---

[1] 10 Forum, 39 (1890).

[2] 17 Forum, 26 (1894).

[3] Ripley, W. Z., Railroads, Finance and Organization, 378 (1915).

[4] Prince, T., "The Rock Island," 19 Moody's Mag., 409 (Aug., 1916).

[5] Dewing, A. S., Corporate Promotions and Reorganizations, 557 (1914).

small capital, a business which can be created or liquidated in a short time, the most efficient will never be compelled to sell for less than cost. Instead, the less able managers of the less efficient plants will wisely stop producing or even retire from business. But if large amounts of capital are invested or if the service is required by the public, or if the business carries itself forward by the sheer momentum of its past, it can neither stop producing nor go into liquidation. A railroad is a case in point. It cannot cease to exist.[6] If the rates it collects for its services are insufficient to pay for its operation, it must still run its trains.[b] And the rates a railroad may collect bear no immediate relation to cost. They are purely competitive in that the heavy capital investment of the railroad's plant requires that freight be taken, although it returns just a little more than the mere cost of operation. Social and economic conditions require that the road be operated even though there is no return on the investment.[c]

---

[b] For example, in a country even as thickly settled as New England, a large proportion of the passenger trains operated do not pay their expenses. It cost (using the statistics for eight months ending February 28, 1915) the New York, New Haven and Hartford Railroad $2.07 per train-mile for all trains, without taxes or fixed charges. During the test period from January 18 to 31, 1915, 316 out of 2,098 passenger trains earned over $2 per train-mile. In other words, only 15 per cent of all the passenger trains run by the railroad paid their proportion of the total operating costs of the road, provided it may be assumed that train operating costs may be evenly distributed. Even if this is not accepted and the train-mile costs for the freight and passenger services are separately computed, it is improbable that half the passenger trains on any large, widely extended road pay the direct costs of operation. Statistics from an address by Howard Elliott at Norwich, Connecticut, April 8, 1915.

[c] Suppose it costs $1 a mile in direct expenses to operate a certain train. This sum pays merely the expenses which would not be incurred if the train were not run, but it does not include any share of the costs of the central office, the maintenance of the road, or the interest on the funded debt. Under normal conditions the railroad would charge such rates that the train would yield not only $1 per mile, but sufficient as well to meet the proportionate general expenses and to make some return to bondholders and stockholders. But suppose the same charge had to be met by a train of a competitive line when there was hardly freight enough to warrant the operation of a single train. Clearly each railroad would carry freight at the rate that secured the most business, and it would seek to obtain the most business by reducing the rate. No freight would be taken by either road if the yield per train-mile were less than $1. But

---

[6] An interesting example of a railroad going into liquidation is that of the Buffalo and Susquehanna Railway. See Book V, Chapter VI, page 1077.

Competition is most severe in businesses analogous to that of the railroad, where the things bought are never the things sold, so that the determination of the cost of production is entirely a problem of accountancy. Between the years from 1885 to 1893 most of the western transcontinental railroads failed. The reason was simple.[d] Too many roads had been built to carry the traffic at remunerative rates. It was clearly a case of excessive competition brought about by unwarranted railroad expansion.

A local public utility company is ordinarily protected by the utility commission of the state in the exercise of monopoly powers, provided it renders good and reasonably cheap service to its customers. Competition is a relatively unimportant factor for such businesses, unless one considers the competitive influence of two utilities—gas and electricity, omnibuses and street-cars. In manufacturing businesses the plea of severity of competition can be advanced but seldom as a fundamental cause of failure. A manufacturing business can curtail production even at the expense of its organization, rather than dispose of its product at less than cost. It is true, competition is alleged to be the cause of many failures,[e] but the allegation is merely an excuse to obscure the deeper defect in

---

any rate above this would contribute something, however small, to those general expenses of the road that continue whether the train runs or not. The competition between the roads would drive the rates so low, in fact nearly to $1 per train-mile, that not only the margin of profit would disappear, but the margin of general and maintenance expenses. As a result, both roads would fail.

[d] In a careful study of the causes of the railroad failures of 1893, Simon Sterne mentions as particularly important the inability of the country to develop sufficient railroad entrepreneurs to manage the large number of roads which had come to form the American railroad network. He does not emphasize the cause here given, although he is led to consider the influence of cost of service on the rates and earning capacity of the railroads.[7]

[e] Notably, the various failures of such continuously unsuccessful enterprises as the cordage, cotton duck, strawboard, salt, writing paper, newspaper, and steam pump combinations, when the true causes lay outside the precincts of economics. In each case the cause of failure was the sheer lack of business ability of their managers to meet such competition as was inherent in the industry.

---

[7] Sterne, S., "Recent Railroad Failures and Their Lessons," 17 Forum, 19 (1894).

business management. Too keen competition is invariably the excuse of the weak.

Unprofitable Expansion.—Unprofitable expansion is a much more serious and a much more common cause of failure than drastic competition. It is the besetting sin of a fairly successful corporation, with a relatively large margin of gross profit based on a small output. It is also the usual cause of disaster among corporations favored with an unusual capacity to borrow money. While overmastering competition occurs only when there is a large capital investment, the temptation to over-expand is present in every business. It is commonest in a country like the United States where the margin of profit shows marked fluctuations and where the temperamental bias of optimism is magnified by an inclination to regard hopes for the future as things predestined. As a keen judge of business conditions remarked to some students, "When you have a business that is growing very rapidly, you are apt to be a little blinded by the rapidity of it, and look at your gross sales rather than your net profits." [8]

The number of instances in which the cause of failure is over-expansion are legion, but for the present purpose it suffices to note three drawn from the manufacturing, the public utility, and the railroad industries.

Unprofitable Expansion in Manufacturing Utility.—One of the striking instances of failure due to over-expansion of an otherwise successful manufacturing business is afforded by the history of the Westinghouse Electric and Manufacturing Company.[9] Starting in 1886 with sales amounting to less than $150,000, the business grew by leaps and bounds. During the year 1894, a period showing relatively little business activity, the Westinghouse Company, on a capital including bonds and current debts of less than $10,000,000, showed a net profit of over 16 per cent. Expansion continued. The company organized foreign departments and finally foreign factories. It financed interurban electric railway lines for the purpose of exploiting its inventions; it advanced large sums to unproductive subsidiary companies. By 1906 its total funded and current liabilities and stock had risen to $45,000,000, but the net profit was only a little over $3,000,000, or only 5 per cent. No theoretical economist ever discovered a clearer illustration of the law of diminishing returns. As a small business in a year of depression, the Westinghouse Company earned 16 cents on every dollar of invested capital; as a large business in a year of marked prosperity, it earned 5 cents on each dollar. It failed the year following.

---

[8] Thomas W. Lamont, Lecture before the Graduate School of Business Administration, Harvard University (1909).

[9] For further details concerning the history of the Westinghouse Electric and Manufacturing Company through its last reorganization, see Dewing, A. S., Corporate Promotions and Reorganizations, Chap. VII.

Unprofitable Expansion of a Holding Company.—The second type of illustration comes from the field of the holding company, or more particularly the public utility holding company. As explained in another connection,[10] this type of enterprise became very popular in the years following the panic of 1907 when capital was seeking new channels of investment. The first two or three of these companies were successful from the beginning, notably the original United Gas Improvement Company, and later the American Light and Traction and the American Gas and Electric companies. In finance as in all other fields of endeavor, there are always hosts of imitators whenever a new development seems to point the way to an easy success. Public utility holding companies sprang up all over the country. As their profits consisted entirely in the increment of earnings remaining to generous issues of common stock of the local operating companies, it seemed to the operators of these companies that the greater the number of utilities controlled the greater must be the profit. The success of the American Light and Traction Company was due to the careful selection of properties to be acquired, conservative management, and shrewd finance. Its imitators, however, lacked these three elements of success—they lacked particularly care in selecting new properties. Economy was sacrificed to mere size. This foolhardy mania for expansion reached its climax toward the end of 1911 just before the decline of the stock market values which ended in the close of the Stock Exchange, July 30, 1914. Subjected to a shrinking market for credit, these recently organized holding companies were in dire straits. Most of them resorted to the issue of short-time notes, either to meet the demands of their subsidiaries, or to fulfil already existing contracts. Some of them used borrowed money to maintain the interest on their bonds.[11] Several went into the hands of receivers. Others passed their preferred stock dividends or gave scrip for them. They all advanced excuses—a tight money market, increased taxes and labor costs of the operating companies, and latterly a difficulty in selling securities because of the Great War. But the fundamental reason was not given. The companies had spread their resources and their credits so thin that the cover had begun to break. Those over-expanded corporations with weak credit failed. Those supported by strong banking interests merely lay fallow. A period of rest and resuscitation followed the period of feverish activity. And such is the fundamental and inherent strength of the public utility industry, supported by the widespread and continuing prosperity of the country and the thrift and energy of the American people, that this period of rest in the years immediately following the Great War was sufficient to re-establish most of these public utilities on a sound basis.

---

[10] Book IV, Chapter V.

Unprofitable Expansion in Railroading.—In the field of railroad enterprise, the influence of unwise expansion[12] was much more potent than that of keen competition even during the decade before the panic of 1893, although excessive competition has been advanced as the primary cause of the numerous receiverships of that time. When the Northern Pacific passed into the hands of receivers, the road was facing an annual loss of over $1,500,000, caused very largely by its unprofitable branch extensions. It has been suggested that these unprofitable branch lines are necessary for a large railway in order to develop traffic.[13] This is nonsense.

---

[11] The Northern Idaho and Montana Power Company, a subsidiary of the Standard Gas and Electric Company of Delaware. See Book V, Chapter V, page 1006.

[12] This cause as a basis for railroad insolvency has been discussed by many writers. See particularly Cleveland and Powell, Railroad Finance, 219 (1908), and Ripley, W. Z., Railroads, Finance and Organization, Chap. XIV (1915).

The subject of railway expansion and consolidation has been discussed already in Book IV, Chapter IV. In that connection the course of railway expansion was outlined without reference to its evil consequences if carried to excess.

Ill-Advised Expansion of The Atchison.—The Atchison, in its foolish expansion from 1884 to 1888, illustrates the principle clearly. In the former year with 2,800 miles of line the road made net earnings of $2,600 a mile; in the latter year with 7,000 miles of line it earned only $700 dollars a mile.[f] In the former year the road had over $5,000,000 available for its stockholders, in the latter year there was a net deficit of $3,000,000. Looking at the matter another way, the Atchison system earned 6½ per cent on its total outstanding bonds and stock in 1884, 2½ per cent in 1888.[g]

Unprofitable Expansions of The Reading.—Among eastern roads the failure of the Reading in 1880 was due directly to the purchase, at a cost of $73,000,000, of coal

---

[f] These figures taken from the two tables given by Daggett. Total Atchison system.

	1884	1888
Mileage	2,799	7,010
Bonds	$48,258,500	$163,694,000
Stock (Atchison)	60,673,150	75,000,000
Gross earnings	16,699,662	28,265,339
Operating expenses	9,410,424	21,958,195
Net earnings after fixed charges (before interest on floating debt)	5,147,883	deficit 2,933,197

Daggett, S., Railroad Reorganization, 198 (1908).

[g] At the beginning of this period of expansion, the editor of *The Commercial and Financial Chronicle*, while commenting favorably on the general policy, states: "As regards the Sonora purchase, results have not justified it from a financial point of view at least. The road entails a large annual loss. Its utility, too, as a Pacific Coast connection has proved visionary."[14] The Sonora line was representative of most of the purchases made during the period.

---

[13] Daggett, S., Railroad Reorganization, 281 (1908). 57 Chron. 854.

[14] 40 Chron., 468 (April 18, 1885).

lands valued at the time at $30,000,000,[h] and the receivership of 1884 to the lease of the Central Railroad of New Jersey which guaranteed a dividend of 6 per cent on its stock when the interest on its bonds was not earned. The Reading's failure of 1893 can be traced to the burdens of the Central New Jersey and Lehigh Valley leases, together with wild speculations in the stocks of New England railroads.[i] So that each of the three failures of the Reading can be attributed, unhesitatingly and without a suspicion of doubt, to unprofitable expansions.

---

[h] Although perhaps a valuation of $30,000,000 might have been made at the time, subsequent events have shown that the Reading's coal lands are of almost incalculable value. The point is, the Reading could then ill afford the capital expenditure, no matter what the real value of the land.[15]

[i] "Mr. McLeod, the President of the company, entered on his individual account into a venture involving the purchase of a very large amount of stock, and was called upon to furnish $350,000 of a certain class of bonds as 'margin.' Having only $320,000 of his own, he secretly appropriated $30,000 from the treasury of the company, mingling them with his own to make up the amount. Shortly afterward, being in need of further 'margin,' he had recourse to the company's treasury in the same manner. After he had thus taken $842,000 of securities from the treasury, and when there was a loss of about $420,000 on the venture, the board of directors of the road was convened; and his action was, in general terms, approved. The preamble to the resolution upon which this approval was based stated the amount of securities withdrawn as only $613,000, and the resolution itself overstated by $30,000 the amount of the president's own securities used, he evidently continuing to consider the $30,000 which he had first taken out of the treasury as his own. Some weeks after this resolution was passed, Mr. McLeod again had recourse to the treasury for an additional amount of $250,000 in bonds, and about a month later he took a further amount of $1,500,000 in bonds and $250,000 in cash—$1,000,000 of the bonds and the cash being taken on the very day on which the company went into receivers' hands. When the attention of the court was called to these transactions, there was a loss of nearly $1,500,000, and securities to nearly $3,500,000 in par value had in the meantime been involved, and of course their absence from the treasury largely led to the downfall of the company.

"At the time when the resolution was passed, no mention whatever was made of the fact—and the directors were in complete ignorance of it—that by reason of these purchases Mr. McLeod had incurred a liability of over $6,000,000, nor did he deem it his duty to inform the board as to the number of shares he had purchased or at what price; and, instead of stating that there was a loss on the transaction, he stated that the transaction was profitable."[16]

---

[15] Figures and details in Daggett, S., Railroad Reorganization, 78 (1908).

[16] Rice, Isaac L., "Legalized Plunder of Railroad Properties," 17 Forum 676 (1894).

A Recent Instance of Unprofitable Expansion—The New Haven.—The most conspicuous railway failure of the last few years due to unprofitable expansion is that of the New Haven system. Brushing aside for the moment all the secondary causes that led to one of the most unfortunate and unnecessary failures of railroads, the primary fact stands out that the New Haven Railroad itself was ruined by the insane craze of its bankers and directors so to extend its sphere of control as to embrace a monopolistic system of transportation covering all of New England.[j] Sustained by the hope of ultimately securing monopoly profits and thereby justifying the outlay, stimulated by the surreptitious profits obtained by its directors, and by the ease with which it received credit from New England investors, the road plunged headlong into a series of expenditures which embraced traction companies, steamship lines, connecting railroads, even gas, light, and water companies, until the legitimate profits from the railroad were more than offset by the losses on the outside enterprises. Thus in 1899, on a total capitalization of $80,000,000 including bonds and stock, the company earned, above operating expenses and taxes, almost exactly $10,000,000 or approximately 12 per cent on the capitalization. This was before any outside operations were undertaken.

---

[j] Much has been written by the Interstate Commerce Commission, by bankers, and by railway experts concerning the causes of the plight into which the New Haven system was driven in 1914. The whole case resolves itself, in the opinion of the writer, into very simple terms. Prompted by the apparent success which the Reading and other railroads had attained in securing to themselves a form of transportation monopoly, the directors and bankers saw in the compact area of New England an opportunity to create a monopoly of a very high degree of organization. No price was too heavy to pay if the object could be attained, no temporary sacrifice too great. Monopoly, however, could not be obtained. Economic laws could not be set aside. As a result, the integrated parts, which could produce a revenue on their purchase price only on the basis of a monopoly, became burdens rather than sources of revenue. Aside from the Report of the Interstate Commerce Commission—a very dramatic recital for a public document—one of the most intimate accounts is that given by President Mellen in a personal interview to a Boston newspaper.[17]

---

[17] See *Boston Sunday Post,* November 9, 1913. Attention is called to the frequent references in Book IV, Chapter IV, covering the early history of the New York, New Haven and Hartford Railroad.

In 1914 after the completion of the policy of expansion, the total outstanding capitalization had increased to $417,000,000—not including over $20,000,000 subscribed to capital as stock premium—while the railroad mileage stood at exactly the same figure. The net income available for interest and dividends on capital had increased to $21,500,000, but that was only 5 per cent on the outstanding stock and debt—less than half what it was before the period of outside speculations. In brief, during the fifteen years between 1899 and 1914, the railroad mileage of the New Haven system was not increased. Yet during the period, invested capital became five times as great, and the earnings only twice as great.[k]

---

[k] The year 1899 is chosen, as the number of railroad miles operated then, 2,047, was identical with that of 1914. If the case were to be strengthened, one could go back to 1892, to the old New Haven Railroad of only five hundred miles—that is, before it began to have connecting lines. In that year the net earnings after taxes were $3,000,000 on a total capitalization of just $25,000,000—12 per cent on the capitalization. This same year was one of the most disastrous in railroad history, and roads all over the country were approaching failure. A student of railroad finance of that period might say, with ample justification that, with the possible exception of the Pennsylvania, the New Haven Railroad was in the strongest financial position of any important railroad in the country.

The law of diminishing returns finds a clear illustration in the following table:

	1892	1899	1914
	Before Extensive Leases	After Completion of Railroad System, but Before Outside Expansions	Completed Structure
Mileage	508	2,047	2,046
Stock	$23,375,000	$54,641,400	$180,017,000
Bonds	2,000,000	25,836,200	237,295,254
Total capital	25,375,000	80,477,600	417,312,254
Total net earnings after taxes	3,223,965	10,014,817	21,529,186
Percentage earnings on capitalization	12%	12%	5%
Interest charges	$ 80,000	$ 1,111,071	$ 11,839,722
Rentals and losses on leases and guarantees	981,684	4,537,875	9,420,802
Surplus available to stock	2,162,281	4,465,971	268,862
Percentage earned on stock	9%	8%	1/10 of 1%

A remarkable analysis of the causes of a railroad failure is contained in the summary of the Report of the Interstate Commerce Commission to the Senate on the last receivership of the St. Louis and San Francisco Railroad.

"While the Frisco was compelled to borrow funds from every available source, it continued the policy of advancing money to companies in Texas. The difficulties of the Frisco were of a financial and not of an operating character. The Frisco troubles may be attributed to (1) disproportionate capitalization, (2) acquisition of new lines, (3) financing by Frisco of the New Orleans, Texas and Mexico Railroad and other south Texas lines, (4) assumption of heavy fixed charges in the acquisition of the stock of the Chicago and Eastern Illinois Railroad, (5) the sale of its securities at

The Law of Diminishing Returns in Operation.—All these failures due to unwarranted extensions illustrate the

---

prices so low as to indicate a deplorably weakened credit or an extravagant arrangement with bankers to whom large profits accrued in the purchase of the bonds and the subsequent sale of the same to the public, (6) miscellaneous causes, among which are the payment of dividends upon the preferred stock in spite of its weakened credit and need of money, poor investment and expensive rentals which are the investment in the New Orleans Terminal Company stock, in the Terminal Lumber Company and rental paid the Crawford Mining Company. It appears of record, through statements secured from the St. Louis Union Trust Company, syndicate manager for the syndicates that financed the construction of a number of properties which were subsequently sold to the Frisco, and which statements were in part supported by the testimony of witnesses, that a number of lines acquired by the Frisco were purchased by that company at prices which afforded large profits to the syndicate subscribers and trust companies. Among the subscribers to these syndicates were various officials of the Frisco, including B. F. Yoakum, Chairman of the Board of Directors, as well as officers of the St. Louis Union Trust Company."

On the other side the expansion of the St. Louis and San Francisco was ardently defended at the time of its last failure by the chairman of the board who was directly responsible for it, who replied, specifically to the charges advanced in the report of the Interstate Commerce Commission:

"When the construction of these lines was undertaken in 1897, through the then sparsely settled country which has since been so largely developed through the agency of the Frisco, it was exceedingly difficult to get money for this pioneering work. Therefore, the usual plan of forming syndicates to construct and finance such lines was adopted, and in order to show my faith in the undertakings, and to secure the necessary help, it became imperative for me to invest my own funds.

"The acquired railroad properties have all proved advantageous and profitable to the Frisco, with the possible exception of the Chicago and Eastern Illinois and the New Orleans, Texas and Mexico. Judged by results at the present time, these two properties do not appear profitable, but considered from a broad, constructive standpoint, the larger plans in view, and the probable future earnings of these properties, I believe their purchase will be fully justified.

"The Frisco acquired a majority of the stock of the Chicago and Eastern Illinois Railroad Company in October, 1902, and at the time of this acquisition I did not own any Chicago-Illinois stock, nor did I make any profit, directly or indirectly.

"At the time, railroads were being consolidated into large systems, and those without access to large railroad and commercial centers, such as Chicago, could not develop their traffic satisfactorily.

"During the eleven years since the purchase of this property, the Frisco has paid out on stock certificates approximately $1,700,000 more than it has received in dividends, or an average of about $150,000 a year. The interchange of traffic, however, has resulted in gross earnings to the Frisco of approximately $3,750,000 annually.

"At the time of the purchase of the Chicago and Eastern Illinois, it practically controlled the coal traffic of Illinois and Indiana to Chicago markets. Since that time, the Southern Illinois, Big Four, and other railroads have extended their lines into that territory, and have become large carriers of coal tonnage into Chicago and other markets.

"It is believed by an expert engineer who has recently made for economic law of diminishing returns. This is more than a mere academic doctrine of scholastic economists.[19] It is a vital force operating in actual business. If a certain investment, say of $1,000,000 in a manufacturing plant or a railroad, yields a net profit of 10 per cent, it does not follow that an investment twice as great will yield twice as great a profit. On the contrary, wastes incident to the bigger business will creep in, so that the profit, although perhaps greater in actual amount, will be smaller proportionately. And if the investment be continued without limit, the decline in actual earnings with the later investments will even obliterate the profit on the earlier investments. In brief, after a certain point, as capital is added to any industry, the rate of return on each dollar invested grows smaller. It is true that up to a certain point, the point of saturation, as it were, the profit tends to increase. But this point is early reached. The optimism of business men, the avarice of bankers, and the enthusiasm of engineers easily carry the business beyond it.

Cessation of Public Demand.—A third, deep-lying economic cause of failure is the change in the conditions of public demand. Ordinarily a wise conservatism directs the appropriation of a portion of surplus earnings to a contingency fund which cares for the unforeseen changes in the demand for the product. But sometimes these changes are so over-

---

certain bondholders an exhaustive study and report of the New Orleans, Texas and Mexico, that the line will within three years show an earning capacity averaging $7,000 per mile gross per annum. It is also estimated, that being a low grade road, it can be operated for 70 per cent of its gross earnings, resulting in a net of $2,100 per mile per annum.

"I have endeavored to be a builder, and to aid in the creation of wealth for the country into which the Frisco lines have been projected. On the line from Houston to Brownsville, land values have increased from about $2 an acre in 1901 to from $25 to $150 per acre to-day, or probably $100,000,000 increase in value on the land within ten miles on either side of the railroad along that 400 miles. The same can be said of Oklahoma, where we pushed railroads through when it was 15 to 20 miles between houses."[18] All this was true enough, but neither Mr. Yoakum, nor anybody else, can build railroads for the sweet charity of boosting land values and have the roads remain out of bankruptcy.

---

[18] Letter of B. F. Yoakum to stockholders, December, 1913.
[19] See Book IV, Chapter II, "The Law of Balanced Return."

whelming that the corporation cannot be protected against them by any reasonable allowance. For example, when a railroad builds a branch line to a smelter and that smelter is summarily closed because of the damage done to the neighborhood by its fumes or because of the refractory nature of the ores upon which it depends, the railroad property ceases to have value. If it is an independent railroad, it fails.

One of the best examples of the failure of a corporation due to the cessation of a public demand is afforded by the history of the American Bicycle Company. This combination acquired in 1898 some forty-eight bicycle plants producing upwards of 65 per cent of the bicycles made in the United States.[20] According to reliable auditors the annual profits of these plants had together averaged nearly $5,000,000 for the preceding four years. Appraisal by reliable independent experts showed actual property to the value of over $22,000,000, of which upwards of $12,000,000 consisted of net quick assets. All this augured well for the combination. The total number of bicycles sold fell from 860,000 in 1899 to 100,000 in 1902. Suddenly, with no warning, the public ceased to use its toy. As a result the millions of property set aside for the manufacture of bicycles became useless and the company failed. Even after $2,500,000 in new money was added in order to adapt the factories for the manufacture of automobiles, it was not more successful. The reorganized company failed twice thereafter.

Ordinarily, fluctuations in demand are to be looked upon as normal incidents to production and are to be provided for by setting aside reserves during periods of large profits with which to meet losses during periods of restricted demand. A failure thus to provide for the normal fluctuations of trade is more a lapse of simple business judgment than the operation of anything sufficiently fundamental to be called an economic cause of failure. It is only when such fluctuations develop into far-reaching changes, such as those incident to the Great War, or when total cessations in demand arise from changes in public fancy and the advance of arts and sciences, that reasonable provisions are insufficient and the fluctuations can be regarded as fundamental causes of disaster.

---

[20] Figures and estimates in this paragraph taken from Dewing, A. S., Corporate Promotions and Reorganizations, Chap. X (1914).

Excess Payments of Capital Charges.—The fourth of the group of fundamental economic causes of failure is entirely financial. It is the payment of excessive interest or dividends due to a mistaken belief in the profitableness of the enterprise. Such payments may often be excused on the ground of unconservative but technically correct principles of accountancy—principles which, for example, may be theoretically defensible, but are unquestionably unjustifiable in practice. The corporation which employs them becomes insolvent whatever the textbooks of accountancy may say. At other times the payment of interest or dividends in excess of profits cannot be justified by any theory, and can be called nothing short of fraud. Thus the American Malting Company, in a notable case that came before the courts, paid out nearly $900,000 in dividends, while its gross profit, without allowing for depreciation or special reserves, amounted to $500,000.[21] In 1872 the old Erie Railway was rescued by Daniel E. Sickles from the notorious Drew-Fisk clique. In the three following years the road earned a profit of $1,008,775. But its directors represented the profit to be $5,352,573, on the basis of which dividends were paid on the preferred and common stocks. Meanwhile, $6,000,000 of bonds were sold.[22] From 1888 to 1895, or in seven years before its failure, the Baltimore and Ohio paid out $6,269,008 in dividends, whereas an independent auditor found that less than $1,000,000 had been actually earned.[23] In 1887 the directors of the Atchison road increased the dividend rate from 6 to 7 per cent at a time when the net earnings of the road were actually falling short, by over $2,000,000, of the interest and rental requirements.[24] And this situation is present in the contemporary railroad troubles. Although the failure of the St. Louis and San Francisco Railroad in 1913 was due primarily to unprofitable extensions, it was aggravated, in no small measure, by the payment of excessive charges on the securities of the Chicago and Eastern Illinois. The weakness of the Toledo, St. Louis and Western Railroad, which passed into the hands of receivers in October, 1914, was due to the excessive capital charges resulting from the burdensome charges of the Chicago and Alton Railroad.[1]

---

[21] Dewing, A. S., Corporate Promotions and Reorganizations, 286 (1914).

[22] 6 Ry. Age Gaz., 100 (1874) referred to by Daggett, S., Railroad Reorganization, 37 (1908). These cases have been previously cited in the chapter dealing with dividend policy. Book III, Chapter VI, notes b and c.

[23] Daggett, S., Railroad Reorganization, 22 (1908).

---

[1] Closely allied with the direct payment of unearned interest by embarrassed railroads is the form of their capitalization. If, because of past mistakes and false theories of finance a railroad is overloaded with funded debt, the present management—whether or not the fault be theirs—must meet interest charges or else confess insolvency. Immediately before the Great War (July 1, 1914) there were thirteen American railroads, over a hundred miles in length, in the hands of receivers. This was before the Great War threw our financial situation into chaos, so that the causes of these disasters are to be traced to the economic and financial conditions surrounding the roads themselves. Immediately afterward the Missouri Pacific, the Rock Island, the Missouri, Kansas and Texas, the Boston and Maine, the Toledo, St. Louis and Western, not to mention other smaller roads, became insolvent. But considering only the thirteen roads which were in the hands of receivers at the opening of the Great War, the lines represented a total of 16,000 miles. The capitalization was over a billion dollars, and of this capitalization over 70 per cent was represented by funded debt bearing fixed charges. The following is the list:

Road	Mileage	Bonds	Stocks
Atlanta, Birm. & Atlantic	645	$ 19,823,000	$ 35,000,000
Chicago & Eastern Illinois	1,275	63,155,000	25,817,800
Cincinnati, Hamilton & Dayton	1,015	67,401,265	8,248,575
Colorado Midland	337	9,532,000	8,376,100
Mississippi, Oklahoma & Gulf	246	8,991,463	8,261,000
Oklahoma Central	135	3,180,000	3,193,500
Pere Marquette	2,330	66,672,000	26,242,400
Pittsburgh, Shawmut & Northern	282	14,655,600	15,000,000
St. Louis & San Francisco	6,262	291,316,691	49,985,763
Trinity & Brazos Valley	462	8,760,000	304,000
Wabash	2,515	115,181,149	92,400,427
Wabash Pittsburgh Terminal	89	55,504,000	10,000,000
Wheeling & Lake Erie	511	23,000,000	36,980,400
Total	16,104	$747,172,168	$319,809,965

Total capitalization.......................... $1,066,982,133
Percentage represented by bonds............... 70.1%

The largest of these roads, the St. Louis and San Francisco, had 88 per cent of its capitalization represented by bonds. On the other hand, the chairman of the board of directors of the road contended that the exigencies of state law coupled with the inheritances from the last reorganization forced him to follow this plan. In discussing the causes of the failure of the St. Louis and San Francisco Railroad, he said:

---

[24] Daggett, S., Railroad Reorganization, 198 (1908).

It is important to observe also that although the occasion for the payment of unearned dividends and interest may be traced back to overexpansion, and for that reason overexpansion is to be regarded as the fundamental cause of distress, still the payment of unearned capital charges has, in many cases directly precipitated failure.

This is particularly true of railroad systems constructed out of numerous component parts, and of industrial combinations promoted in the expectation of receiving monopoly profits. Thus of 24 cases of industrial failure examined in another connection, it was found that "18 out of the 24 paid either unearned interest on bonds or unearned dividends on stock in the year just prior to the failure or reorganization," and that "every corporation paid out interest or dividends in the face of falling earnings and none need have suffered serious financial difficulties had the amounts paid in interest and dividends been conserved." [26] Swain, writing many years ago, alleged that the payment of excessive dividends was not a primary cause of railway failure.[27] This may be true, as financially embarrassed roads ordinarily cease dividend payments some years before their failure. But no one can look back over the dividend history of the Missouri Pacific or Boston and Maine without acknowledging that at least one of the deep-seated causes of disaster was an extravagantly liberal dividend policy.

While it is entirely possible and safe to draw on a large surplus in order to maintain interest or dividend payments for

---

"Under the reorganization plan of 1896, the first and second preferred stocks were limited to 4 per cent, and as under the laws of Missouri railroad stock cannot be sold for less than par, that plan practically prevented further sale of preferred stock. This perhaps could not be foreseen at the time of the reorganization, and I only refer to it as one of the difficulties encountered in financing the Frisco system. Therefore, the only source of financing was through bond issues." [25] In this connection see the recital, by the Interstate Commerce Commission, of the causes leading to the failure of the St. Louis and San Francisco (note k).

[25] *Wall Street Journal,* December 17, 1913.

[26] Dewing, A. S., Corporate Promotions and Reorganizations, 557, 558 (1914).

[27] Swain, H. H., "Economic Aspects of Railroad Receiverships," 3 Economic Studies 88 (Am. Ec. Assn. [1898]).

a single year or even two years of reduced business, the policy is at best questionable. No doubt the New Haven Railroad's plight was aggravated by the fact that in the four years from 1910 to 1915 the dividend payments every year exceeded the profits available. No sufficient excuse for the mistake can be found in the desire to protect the small investor or in the hope of maintaining the company's credit among savings banks. This entire matter has been discussed in its proper place before,[28] but it is important to note again that the continued payment of interest or dividends in excess of earnings can have only one outcome, however successful the policy may appear to be for a short period.

Superficial Signs of Failure.—These, then, are the four causes underlying corporate failure—① destructive competition, ② unprofitable expansion, ③ a sudden cessation of demand and the ④ payment of capital charges in excess of earnings. Yet other and more superficial causes are usually advanced by corporate officials in order to explain failure. The favorite excuse for embarrassment and ultimate bankruptcy is ① "lack of working capital." [m] The real situation is ordinarily this. The disaster

---

[m] This excuse has been alluded to in other connections. It makes itself felt during the preliminary discussion of almost every reorganization. In the case of industrials it is invariably used. If one should examine the host of circulars and statements made by corporation officials just prior to business failure, one would find that lack of working capital was alleged to be the chief cause of failure in the great majority of cases. It is a very plausible, and on the whole non-committal, form of excuse. Even as keen an observer as Thomas W. Lamont mistakes the apparent for the essential when he says: "In the instance of industrial corporations, be they manufacturing or mercantile, I am safe in saying that lack of sufficient working capital stands out as the most frequent cause of disaster."[29]

Inadequate working capital is less often advanced as the main cause of railroad failure, although instances abound. Thus President McLeod after he had brought the Reading road into bankruptcy by burdensome leases of the Lehigh Valley and Central of New Jersey and speculations in the securities of the Boston and Maine, the New York and New England and allied roads, remarked naïvely at the time receivers were appointed for this road: "The trouble was brought about by the fact that we were doing an enormous business on a small capital."[30] The financial world was is due to some combination of the four causes enumerated in the preceding paragraphs, but the operation of the causes extends over a long period and is obscured by many subordinate conditions. Meanwhile the corporation struggles manfully to avoid the confession of failure. At first it sells stock or long-time bonds, sometimes seeking to cover up its losses by questionable methods of accounting. When the securities decline in value, as failure becomes more threatening, the corporation sells short-term notes or increases its indebtedness to the banks in the hope that a succeeding era of prosperity will enable it to refund the debt. Then, as the market for its short-term paper declines or disappears, the corporation increases the debts to its mercantile creditors. Finally, when the load of accumulated obligations becomes so great that it cannot be relieved even by extensions and renewals, the corporation confesses its insolvency, but ascribes it to lack of working capital.

---

[28] Book III, Chapter VI, on dividend policy.

[29] Lecture before the Graduate School of Business Administration, Harvard University (February 5, 1909). Notes, page 516.

[30] 18 Ry. Age 164 (1893).

Coincident with the increase in floating debt there are always numerous external signs which point clearly to the impending disaster. These all center about a gradual weakening of the corporation's credit. The corporation finds greater and greater difficulty in securing money even at increased rates of interest.[n] If the stocks of the company are quoted on the exchanges, the crisis is usually heralded by a rapid and unexplained decline in the market value of its securities. At the same time there is an unprecedented volume of sales of the com-

---

much concerned in the spring of 1893, because of the heavy floating debt of the Northern Pacific, on the eve of its failure, yet it was only the outward sign of the previous payment of the unearned dividends on its preferred stock and the heavy advances to unprofitable branch lines.

A similar situation resulted, in an entirely different field, in connection with the failure of a little industrial, the Pierce, Butler and Pierce Company, in January, 1914. The President had apparently acquired a subsidiary without the consent of the directors; and the company had later made large advances to it without allowing the true condition to become apparent from an examination of the balance sheet.

[n] Thus the Westinghouse Company borrowed at 5.8 per cent—including the sinking of the bond discount and the bankers' commission—in 1906, the year before its failure. A few months later it was able to sell only a part of a stock subscription on a 6.7 per cent basis. Just prior to the receivership renewals were made at over 7 per cent.

pany's securities. Frequently these market disturbances are accompanied by reassuring interviews and comments of directors who take upon themselves the duty of publicly protecting the credit of their corporation. In one case the president went so far as to state that the earnings of his company exceeded those of the previous year—reported to be in excess of $1,500,000—when in reality they were hardly $600,000, and when interest on bonds was paid from secret borrowings. After the scandal was brought to light the same president stated publicly that the truth concerning his company's affairs "came as a disagreeable surprise."[31]

The President of a large Cleveland automobile parts company, asked to explain his success, launched into a series of flamboyant platitudes, among them: "Business secrets are of the past . . . good management connotes fair open dealing."[32] This was in the early part of 1918. Early in 1920 the banks forced a change of management. It then developed that the operating loss, not apparent from the signed statement of December 31, 1919, for the year 1919 had been $1,611,349 which had been increased to $2,444,238 as a result of the payment of unearned dividends.

Six months before the Atchison failure of 1893 President Reinhard is reported to have said: "The Atchison, Topeka and Santa Fé Railroad Company, strictly speaking, has no floating debt. Its current liabilities are more than equaled by its current cash assets"; whereas, at the time of its receivership, the floating debt was over $10,000,000.[33] In many cases the deceptive utterances are given an undeserved publicity by the various financial journals which stand ready to print anything that corporation officials who advertise liberally may say. Then, too, the decline in quoted values is often the result of the rapid liquidation of those close to the management who may be conversant with the real situation. The records show that at least two of the important directors of the Asphalt combination sold their securities just prior to the collapse. The investigation by the Interstate Commerce Commission of the circumstances surrounding the receivership of the Chicago, Rock Island and Pacific Railway in 1915 shows that there were many sales of the stocks by men very close to the management. There is evidence even that secret manipulation had been indulged in. There seem to be well-authenticated cases in which the same directors, who were outwardly seeking to support the company's credit by persistent reassurances to the stockholders, were at the very same time selling their own shares and even hastening the impending catastrophe by selling stock short.

---

[31] Dewing, A. S., Corporate Promotions and Reorganizations, 434 (1914).
[32] *System*, 21 ff. (January, 1918).
[33] Daggett, S., Railroad Reorganization, 205 (1908).

The Interstate Commerce Commission, in its report to the Senate on the St. Louis and San Francisco receivership, severely condemns the artificial "propping" of a bankrupt railroad by selling bonds to the public under the misrepresentation of the road's essential soundness. "The sale of securities to the investment public through the bankers at a time when every appearance indicated the insolvency of the issuing company, invites and warrants condemnation of all those who assisted or participated in such a sale. Speyer and Company should have been aware of the poverty of the Frisco and of its difficulties in obtaining funds, as they advanced that company on April 24, $725,000 on its demand note, and $50,000 on its demand note dated April 29, and applied the proceeds of the sale, or $1,000,000 of these bonds, on May 2 to the liquidation of these notes."

The impending failure is further reflected by the current balance sheet. If it is an industrial corporation, the ratio of bank loans rapidly increases and frequently the corporation sells its accounts receivable to "loan sharks" at prohibitive discounts. If it is a public utility or a railroad, the directors will probably resort to small temporary bank loans to finance permanent improvements. And whatever the nature of the corporation, its physical property will depreciate rapidly through inadequate repairs and maintenance allowances. Frequently these symptoms of declining credit will be recognized by "the trade" [o] before they are noticed by the banks and stockholders. But once they are recognized and acknowledged it is clear that the financial difficulties of the corporation are of such a serious nature that mere palliatives will not rehabilitate its credit. A thorough recasting of its financial structure has become inevitable. This is reorganization.

---

[o] It is quite remarkable that the competitors of a weak industrial corporation often become suspicious of impending trouble long before the general public or even the banks.

CHAPTER III

THE PROCEDURE OF REORGANIZATION[1]

The procedure followed at the present time in effecting the reorganization of a large business corporation has developed through a series of precedents, each one of which was established originally more through accident than forethought. Ordinarily a fundamentally important mode of procedure, in financial as well as other social affairs, results from a slow and tempered growth of precedents, all of which are firmly rooted in the common or the statutory law, and all of which are constantly balanced off against contemporary social opinion. The history of the organization of the business corporation, the history of the public franchise, the history of the practice of corporate taxation, are all illustrations of the orderly and well-regulated development of a body of well-considered precedents, striving to be consistent at all times with the law and with public opinion. Not to the same extent is this true of the present practices governing the reorganization of financially embarrassed corporations. They have arisen through immediate necessities; they have come into existence at times when any action, legal or illegal, impetuous or reflective, was better than no action.

Motives Governing the Procedure in Reorganizations.—Three separate and often antagonistic sets of motives govern the procedure to be followed in the reorganization of any kind of large corporation. The most important and usually the least apparent is concerned with the human or psychological elements. Most writers on finance, taking their promptings from published circulars and reports, forget the interplay of human motives, ambitions, antagonisms, and friendships that underlie every financial episode of importance.[a] A corporation is reorganized by men, not puppets; its officers, its creditors, its security holders, the attorneys and the judges, are not mere thinking machines, but ordinary men, subject to human emotions and weaknesses. ① First then, the procedure must be such as to allay, not aggravate, the friction incident to the conflict of personalities. ② The second set of motives governing reorganization procedure is economic. Leases must be continued or abrogated, contracts rewritten, rights enforced or surrendered, in accordance with the single question—Is it profitable? No corporation can be permanently successful and serve the public well which does not pay its operating expenses, including fair wages to its employees, with adequate upkeep of its plant, and in addition a fair rate of return on the invested capital. And the reorganization procedure must recognize this simple economic imperative. ③ The third set of controlling motives is legal and judicial. Experienced students of legal practice have worked out certain more or less clearly defined lines of orderly procedure. Some of these lines of procedure have been prescribed by the courts, others are merely tolerated by the courts

---

[1] Considerable part of this chapter has been printed under the title "The Procedure of Contemporary Railroad Reorganization," Dewing, A. S., 9 Am. Ec. Rev. 1 (March, 1918).

---

[a] A writer on the recent reorganization of the Chicago, Rock Island and Pacific wrote: "Financial philosophies of all philosophies are least amenable to matters of human emotion or sentiment. Like economic laws they are ruthless and immutable. In the sound reorganization of a railroad system, certain general principles are to be borne in mind and adherence to them can safely disregard all matters of personal motive or ulterior objects."[2] The first two sentences are flamboyant nonsense. Financial "philosophies" are amenable to human emotions, because they are based on human nature—at most a complex association of emotions, sentiments, passions, instincts, and some reasoning. The last sentence is untrue because not only must "sound" reorganizations regard personal motives but they would become unsound the moment they ceased to regard them.

A much keener and truer view of the importance of the human motives is taken by another writer, referring to the reorganization of a small, unfinished, unprofitable but strategically important road. "The Kansas City, Mexico and Orient reorganization at the present time will doubtless be influenced by committee members either seeking to get control for the Southern Pacific, or contrariwise, holding in contemplation the continuance of an independent property affording connections into the southwest for all those roads from the northeast which would otherwise be bottled up at Kansas City. In such manner does railroad strategy enter into the deliberations of what might otherwise seem to be purely financial bodies."[3]

---

[2] Prince, T., "The Rock Island—Reorganization by Anæsthesia," 19 Moody's Magazine 409 (Aug., 1916).

[3] Ripley, W. Z., Railroads, Finance and Organization, 390 (1915).

because they facilitate the regular course of the reorganization, and others, arising from the ingenuity of lawyers, are followed until some court decision condemns them. Lawyers are apt to exaggerate their own importance and the significance of their legal machinery in determining the form and details of reorganization procedure, forgetful that a reorganization is primarily an adjustment of human motives and economic conditions, circumscribed rather than determined by the law.[b] The present orderly, and, on the whole, socially expedient procedure in connection with the reorganization of all corporations, large and small, has been built up from the interplay of these three underlying motives.[c]

---

[b] As stated elsewhere in connection with railroad reorganization, but equally pertinent to the reorganization procedure of all corporations, "One may hazard the guess that there is no field of modern economic relations where legal phrases count for as little as in railroad reorganization; and as time passes their significance seems to become less."[4] Or again, "Railway mortgages are not sacred because of the strong legal terms in which they are drawn, but are dependent on success in the business of transportation. . . . Our practice of railway receivership is thus a development of our own circumstances and a sort of compromise between the too strong language of our mortgages and the actual conditions of the business of transportation."[5] The earliest clear acknowledgment by the judiciary itself of this fact, that the author can find, is a statement by Chief Justice Waite some thirty-five years ago: "It rarely happens in the United States that foreclosures of railway mortgages are anything else than the machinery by which arrangements between creditors and other parties in interest are carried into effect."[6] It is noteworthy that this admission that legal steps constitute the "machinery" for accomplishing economic ends, is quoted with approval by Cravath in his essay on the legal procedure.[7] On the other hand, the majority of lawyers and judges would give the impression that legal procedure embraces about all there is to a reorganization.

[c] In addition the reorganization procedure and particularly the reorganization plan of a railroad or other public utility must now meet the approval of the railroad, public service, or other commission. In many states specific statutes require that reorganization must receive the approval of the regularly constituted commission having jurisdiction over the particular kind of enterprise being reorganized.[8]

The New York statute (Laws 1912, Chap. 298, Sec. 55a) specifically provides:

"1. Reorganization of railroad corporations, street railroad corporations and common carriers pursuant to sections nine and ten of the stock

---

[4] Dewing, A. S., 6 Am. Ec. Rev. 907 (1916).

[5] Greene, T. L., "The Commercial Basis for Railway Receivership." 33 Am. Law Reg. and Rev. 417 (1894).

[6] Can. So. Ry. v. Gebhard, 109 U. S. 527 (1883).

[7] Note (n).

[8] An elaborate discussion, with exhaustive citations, of the jurisdiction of a public service commission over a railroad reorganization is given in Opinion and Order, 815 (Dec. 22, 1915) Mo. Pub. Serv. Com. (Re St. Louis and San Francisco reorganization plan of Nov. 1, 1915).

Internal Readjustment.—Very often some plan of internal readjustment or reorganization is attempted, before failure is publicly acknowledged, either through a financial "doctor" or a creditors' committee or both.

Before discussing the complicated steps in a large reorganization involving all these sets of motives one should remember that a reorganization can be accomplished in a much simpler manner, often within the corporation itself. This internal reorganization may be effected by a man brought in from the outside or by a committee comprising creditors, bankers and stockholders. The former is usually a man known to have been successful in the past in rehabilitating distressed businesses. Such a man is often nominated by large creditors; he is placed in charge of the enterprise and dictatorial powers delegated to him. He is generally compensated on some contingent basis—an option on a block of stock or a specified fee, provided his efforts meet with success, and nothing if he fails.[d] The use

---

corporation law and such other laws as may be enacted from time to time shall be subject to the supervision and control of the proper Commission and no such reorganization shall be had without the authorization of such Commission.

"2. Upon all such reorganizations the amount of capitalization, including therein all stocks and bonds and other evidence of indebtedness, shall be such as is authorized by the Commission which, in making its determination, shall not exceed the fair value of the property involved, taking into consideration its original cost of construction, duplication cost, present condition, earning power at reasonable rates and all other relevant matters and any additional sum or sums as shall be actually paid in cash, provided, however, that the Commission may make due allowance for discount of bonds. Any reorganization agreement before it becomes effective shall be amended so that the amount of capitalization shall conform to the amount authorized by the Commission."

It is of interest to note that the statute of the state of Missouri, under which the Public Service Commission assumed jurisdiction over the Missouri Pacific and St. Louis and San Francisco reorganizations, employs the identical words, just quoted from the New York statutes adding: "The Commission may by its order impose such condition or conditions as it may deem reasonable and necessary." (Sec. 62.)

[d] The earliest historical case of this, and one closely resembling the present customs, is that of the Vermont Central in 1850. The road found itself in serious financial straits. Accordingly Josiah Quincy, Jr., son of President Quincy of Harvard College, and then known as a successful railroad promoter, not over-scrupulous but energetic, was given an option on 50,000 shares of the railroad at $50 a share. He was to take the treasurership, become its chief executive, and complete the unfinished road

of creditors' committees, as friendly reorganizers, became very prominent in 1920 and 1921. Through their use the misfortunes of a corporation, especially if they are of short duration, are often kept from general public knowledge and the good-will of a business is preserved intact.[10]

Events Immediately Preceding Failure.—The explicit and publicly acknowledged failure of an industrial company may come suddenly, as the immediate consequence of a labor strike, a panic, or a bank failure, or even the death of an important director. A railroad failure, or the failure of a local utility, invariably due to deep-seated, slow-acting causes, may often be postponed or quickened at the discretion of those in immediate control. At all events, when the financial and operating conditions of the corporation reach such a pass that a crisis seems inevitable to the management, it takes one or both of two steps—the organization of protective committees and the petition for the appointment of a receiver. Sometimes committees close to the management are formed before failure has reached a critical stage, one of the avowed purposes being to prevent or forestall receivership proceedings;[e] and sometimes receivership proceedings are brought suddenly, and almost at the last moment, before the management has an opportunity to organize a "stockholders' committee."[f] Thus no general

---

to its northern terminal.[9] He failed in the endeavor, so that his option became worthless.

[e] This is true for all corporations, especially when the decline in the corporation's credit has been gradual, obvious to all, and due, probably, to deep-seated and far-reaching causes. Thus the credit and the financial standing among investors of the Missouri Pacific Railway had fallen steadily since 1900. This was apparent to all. The conditions grew worse, year by year. Finally in July, 1914, protective committees were organized in the hope of effecting a "readjustment" (an innocuous word substituted for reorganization). The petition for receivership was not made until August, 1915, when it was found that the various committees could not accomplish this "readjustment."

[f] These sudden and unpredicted crises, at which there is insufficient time to organize protective committees, are commonest in the industrial field. The receivership of the old National Cordage Company in 1893 occurred suddenly after a day of precipitous decline in the company's securities. The receivership of the Westinghouse Electric and Manufac-

---

[9] Report of Investigating Committee, Stockholders Vermont Central Railroad, 1853.

[10] Creditors' Committees are discussed in Chapter IX.

rule can be laid down covering the order of these two events, but the public acknowledgment of financial failure is indicated if one or the other or both of them occur.

Stockholders' and Creditors' Committees.—The organization of protective committees is more important than the receivership proceedings, the latter being a legal formality now often dispensed with. The committees arise from two different sources—the stockholders and the creditors. Invariably there is at least one stockholders' committee, usually dominated by the old directors of the corporation. This committee acts on the defensive; throughout the whole course of the reorganization proceedings the stockholders' committee is engaged in explaining and justifying the past management, and haggling with the other committees in regard to the extent of the sacrifices which the old stockholders must undergo in order to regain the control of the corporation. The other types of committees are representative of different classes of creditors. In the reorganization of a small industrial corporation, there is, in addition to the stockholders' committee, only one committee of creditors. In intricate industrial reorganizations there may be separate committees representing the merchandise creditors, the bank creditors, and the public holders of the notes and debentures. In intricate railway reorganizations there may be committees of junior bondholders, of the senior bondholders, of branch and divisional line bondholders, and of the bondholders of subsidiary lines or terminal properties controlled through leases or operating contracts. The committees of the holders of the floating debt are usually formed and dominated by the large bank creditors. The committees of bondholders are formed and dominated by the investment banking houses which were responsible for the original sale of the bonds to the pub-

---

turing Company at the climax of the panic of 1907 occurred suddenly at the request of large outside banking interests. In such cases there is no time to organize committees of any sort, although frequently the executive committee of the corporation or a group of the directors constitute themselves a stockholders' committee.

lic; if the bonds were distributed long ago, prominent trust companies or life insurance companies may assume the guiding hand.[g]

The committee or committees representing the floating debt, the junior bonds, the notes and debentures, will stand antagonistic to the committee of stockholders. They will insist that the junior creditors shall endure as little sacrifice as possible, and that the full brunt of the burden of reorganization shall fall on the stockholders. The committees of senior bondholders will assume throughout an attitude of watchful waiting. In the majority of cases, especially if the property is a railroad and the lines covered by these liens are strategically important for the unity of the railway system, these committees will be called upon to take little part in the reorganization. If, as is the case in comprehensive railroad reorganizations, they are required to fund their bonds under new first and general mortgages, they will be able to prescribe the conditions which the junior bondholders and stockholders must accept.

In the older reorganizations, there were more committees than at the present time.[h] The tendency now is to have few committees but to have these few representative and responsible and to endow them with considerable power. On the whole the following practice is becoming clear: The various classes of holders of debts and securities organize themselves into as many committees as there are substantial equitable inter-

---

[g] In rare instances there are special committees representing special interests. For example, in the last reorganization of the Westinghouse Electric and Manufacturing Company an employees' committee was organized. In the older railroad reorganizations of the middle nineties it was usual to have "foreign bondholders'" committees.

[h] For example, before the Union Pacific reorganization had been accomplished, no less than fifteen committees had been formed. There were committees representing the first mortgage bonds, the consolidated mortgage bonds, the collateral trust 5s, the collateral trust 4½s, the Oregon Railway and Navigation consolidated bonds, the Dutch bondholders, two committees each for the Kansas Pacific consolidated bonds and the Denver extension bonds, a joint committee of foreign bondholders, and various committees representing branch line bonds.[11]

---

[11] Daggett, S., Railroad Reorganization, Chap. VII (1908).

ests in the corporation, but no more. A duplication of committees, representing the same interests and differing only in personnel, is frowned on by the courts and acts merely as a brake on the course of the reorganization. The effectiveness and responsibility of committees will vary directly as the authority vested in them.

It facilitates matters very much if the important committees agree among themselves upon the formation of a general reorganization committee upon which representatives of the different committees serve. Not only does such a general committee tend to ease the tension and remove misunderstandings, but it makes possible a unified and far-sighted policy of investigation during the period immediately following the failure, and it does away with unnecessary public discussion and wrangling over successive plans of reorganization. Such a general committee assumes the burden of preparing a plan of reorganization in the interest, ostensibly at least, of impartial justice.

Duties and Responsibilities of Committees.—While the formation of committees is entirely a matter of invitation and mutual agreement, there are very distinct responsibilities attached to membership on important reorganization committees. And it should not be assumed that reorganization committees constitute themselves out of thin air, as it were, or that their personnel is merely a matter of accident. Ordinarily some banking house has been the acknowledged sponsor for the corporation owing to the sale of large blocks of bonds. This banking house will "invite" prominent bankers to become members, thinking by so doing to give added respectability to their committee. The directors, similarly, will "invite" other prominent bankers to serve on their stockholders' committee.

During the earlier periods of reorganization history membership on protective committees was a privilege attaching itself to the ownership of a considerable block of securities the value of which had been placed in jeopardy by the financial crisis. In consequence, important committees were often made up of men of little intelligence or familiarity with finance, quite generally they had no standing beyond their own cities. At the present time, however, the custom is to have well-known, highly responsible men serve on the various reorganization committees; men are chosen more because of their national reputation in banking circles, their acknowledged integrity, proved wisdom, and financial experience, than because they own or control a considerable amount of securities. And such a mode of selection is wise. Large and important corporate reorganizations require highly expert and specialized knowledge. The greater the number of reorganization committees a man has served upon, the greater is his value, and after a time he acquires a kind of national reputation for skill in this particular field. He will not acquiesce in the acceptance of a reorganization plan likely to jeopardize his reputation for honesty and impartiality. Moreover, the plan of reorganization finally agreed upon by men of acknowledged responsibility and expertness will receive public approval much more readily than a plan advanced by men of little prominence. This general tendency to have the reorganization of important corporations supervised by highly responsible experts, rather than by holders of large amounts of securities, is in general accord with the tacit acknowledgment that such reorganizations are matters of public concern.

As soon as each committee is formed, it organizes itself, selecting one member to act as chairman.[i] A legal counsel is chosen by the committee and some trust company is asked to receive the deposit of securities under a general agreement according to the terms of which the committee is empowered

---

[i] Great care must be taken that the committee members, particularly the chairman, shall be free from partiality, else the court may permit a duplication of committees, thus impeding the reorganization. In the recent reorganization of the Chicago, Rock Island and Pacific Railway, the president of the trust company, who was trustee of the bonds upon which the foreclosure suit was based, was chairman of the bondholders' committee. The court considered this a dual position, and permitted a minority bondholders' committee to intervene, thus creating unfortunate complications.[12]

---

[12] Central Trust Co. v. C. R. I. & P. R. R. Co., 218 Fed. 336 (1914).

by those depositing their securities to act for them and in their stead. The powers conferred on the committee by this deposit agreement are very general, and the tendency of recent years is to enlarge them. In fact, it may be said that the committees are trustees for the depositors under their agreement, acting with all the powers possessed by the owners separately and with the additional powers that their majority control involves.

The legal powers of reorganization committees acting under modern deposit agreements have been briefly summarized by the late Adrian H. Joline, one of the ablest masters of the procedure of reorganization.

"There is conferred upon the Committee all the rights and powers of owners of the deposited securities and full discretion as to the methods of carrying out the agreement, with power to construe it.

"The Committee is usually authorized to maintain necessary suits; to sell the deposited securities under certain restrictions appropriate to the case; to put in motion suits to foreclose mortgages; to purchase the property at any sale, using the deposited securities so far as may be in payment of the purchase price, with power to borrow money necessary to complete the payment and to assign the bid or otherwise use the property to secure repayment of the sums borrowed; and to convey the property to a new company or otherwise dispose of it subject to the conditions set forth in the agreement.

"The Committee generally has power granted to it to limit the time for making deposits; to employ counsel and assistants; to receive reasonable compensation, sometimes limited to a certain percentage on the face value of the deposited securities, and to have its expenses paid subject usually to a like limitation. The Committee is frequently authorized to borrow money and to pledge the deposited securities as collateral for the loan, for the purposes of the agreement, the protection of the depositors, the preservation of the property, or to defray expenses.

"Depositors incur no personal liability for expenses, but the deposited securities constitute the fund for that purpose." [13]

Reorganizations Classified According to Legal Procedure.—The character and the significance of the legal aspects of a reorganization depend, very largely, on whether or not a receiver is appointed to administer the business during the period between the financial crisis and the final consummation of the reorganization. This, in its turn, depends on whether or not there is likely to be acrimonious and prolonged dispute among the various security holders, and whether or not a recalcitrant group of security holders is likely to try to impede or even to frustrate an amicable settlement of conflicting interests. If the failure is very serious, thus entailing large losses to all concerned, or if it involves a large railway embodying many conflicting interests, or if there are burdensome leases and contracts which must be abrogated at all hazards, then receivership proceedings are necessary. A drastic, but fair, reorganization can be carried through in an autocratic manner if a receivership is resorted to, because in the end, by a judicial sale of the bankrupt corporation's property, the court can force a recalcitrant minority to accept what it considers a just reorganization plan or extinguish the interests of the minority. But if the reorganization is that of a small industrial corporation, the opposing parties of which are two or more closely knit factions who are able to compose their differences, or if the crisis is merely temporary so that little permanent sacrifice is required of anybody, then the various security holders can probably arrange a plan of reorganization among themselves, without resort to the machinery of the courts. A reorganization consummated without compulsory pressure exerted by the courts through judicial sale, even though a receiver be appointed at some stage in the proceedings, is called *voluntary*,[j] one consummated through the coercive authority of the courts, represented by a judicial sale of the property of the old corporation and the organization of a new corporation, is called *involuntary*.[k] The vast majority of railroad reorganizations are involuntary, and follow a court receivership, although from time to time voluntary reorganizations have been attempted for large railway systems, and sometimes they have been successfully consummated.[1]

---

[j] The word by no means implies that the security holders enter into the reorganization willingly and of their own choice. It is, in truth, voluntary

[13] Joline, A. H., Lectures, Graduate School of Business Administration, Harvard University, Note 12.

---

only in the sense of offering the various security holders more liberal terms than if the financial embarrassment was settled through a foreclosure sale under the supervision and compulsion of the courts. "The readjustment plan," said an editorial writer, speaking of the Missouri Pacific plan of July, 1915, "is said to be called voluntary because the security holders have the option of accepting its terms or of waiting for a more drastic plan."[14]

[k] There is possible a kind of threefold classification depending on legal sanctions:

1. Voluntary, without receivership: when failure is due to temporary causes, that operate relatively slowly, or to the difficulties that are easily adjusted by the security holders. This type is common among industrials, local public utilities, and small railroads. It is rare for large railway systems. The Atchison reorganization of 1889 is one of the rare cases of a voluntary thoroughgoing reorganization of a large railway system consummated without receivership. The whole group of creditor committee reorganizations, so plentiful in the period following the business reversion of 1920-1921, and discussed in a later chapter (Book V, Chapter IX), belong to this group.

2. Voluntary, with receivership: when failure is due to temporary causes, operating quickly, or when valuable property with large equities meets sudden disaster. This type is very common among industrials of all classes. It is the usual form of voluntary reorganization among railroads. The Baltimore and Ohio reorganization of 1899 is an illustration.

3. Involuntary, with receivership: the ordinary form. Almost universal among railroads and commonest among industrials and local public utilities.

[1] In the summer of 1915 a voluntary reorganization, without receivership, was attempted for the Missouri Pacific Railway. As a voluntary reorganization it was unprecedented in the history of railroad finance for the radical sacrifices demanded of the branch line and junior bondholders. To accomplish the co-operation of these bondholders and of the assessed stockholders, the committees pointed out that a receivership, entailing much added expense, would be necessary unless the security holders consented. They refused. A receivership followed, and under the authority of the courts the identical plan of reorganization was forced upon the security holders at greatly increased expense to the corporation.

The reorganization of the Baltimore and Ohio Railroad in 1899 was finally consummated without a foreclosure sale of the main railway system. This is true notwithstanding the fact that considerable sacrifice was imposed on all the security holders, and even the owners of old, underlying prior lien bonds were asked to exchange them for new general mortgage bonds. All things considered it was probably the most remarkable case of the voluntary reorganization of a great railway system to be

---

[14] 6 New York Times Annalist 36 (July 12, 1915).

There have been many voluntary reorganizations of large and small industrial and local public utility corporations.

The paramount advantage of a voluntary reorganization is that it preserves valuable rights. The whole reorganization can be carried out with little outward formality and without harming the general credit of the corporation or any "good-will" values belonging to its trade-marks or franchises. The objections to such a reorganization lie entirely in the difficulty of its execution and in the large amount of securities which must be issued in order to please everybody concerned. In several large and important reorganizations of this kind it has been found expedient to carry on parts of the reorganization under the protection of the court. The number of these voluntary reorganizations, aside from minor capital readjustments, has been relatively small. And in all respects, except in certain details of legal procedure, voluntary reorganizations are similar to those consummated through foreclosure sale.

The advantages of a voluntary reorganization of a railroad

---

found anywhere in the annals of American finance. It succeeded, because the wave of industrial prosperity observable everywhere since 1897 and particularly conspicuous in the railway industry, made all concerned anxious to get the securities offered them in the reorganization plan, and therefore impatient at all delays. Numerous references to this reorganization will be found in Book V, Chapter VI. The entire plan may be studied with profit.

Voluntary reorganizations have been very frequent among industrials. Here there are usually fewer types of securities to be considered, fewer divergent interests to be placated, and the necessity of bringing the period of financial distress to a close can be stated more forcibly than in the case of railroads. A railroad or local public utility may carry on its business under a receiver quite as economically and acceptably to the public as under its corporate owners. In fact there have been instances of honest receivers managing a railroad much better than it was managed by narrow-visioned or irresponsible directors. The old Buffalo and Susquehanna Railroad Company was managed much better by its receiver than by the old directors who were mainly interested in the weak-kneed Buffalo and Susquehanna Railway Company.[15] But an industrial, except in very rare instances, is not managed well by its receiver. Long-time contracts for merchandise must be entered into, selling campaigns must be planned, the personnel of the organization stimulated in zeal and constantly improved, buyers must be inspired with confidence, and banking credit strengthened. All these things a receiver, holding his position only for a temporary period, cannot do. For this reason, if for no other, the various factions will compose their differences as quickly as possible in order that the corporation may quickly resume its normal business activities.

---

[15] See Book V, Chapter VI, page 1077.

over one following a foreclosure and termination of the old railroad corporation, aside from the greater economy, lie chiefly in the preservation of the intangible values of the old charter. Ordinarily, the original railroad was incorporated years before, when railroads were given more liberal charters and before restrictive legislation had curtailed their corporate powers. The case of the Philadelphia and Reading has been cited many times to illustrate this principle. The road was given, in 1833, a remarkably liberal charter by the Legislature of Pennsylvania. Beginning in 1869 the road began to acquire coal lands in its own name, an act not expressly forbidden by its charter nor any subsequent state statute. But in 1874 a new constitution came into force in the Commonwealth of Pennsylvania which expressly forbade railroads to own and operate coal properties. Subsequently the Reading failed twice and was twice reorganized—in 1882 and 1888—but at neither time was there a foreclosure sale. So that, in spite of its long series of vicissitudes, the Reading was still operating under its original charter of 1833 when it passed into receivers' hands for a third time in February, 1893. The chief reason which had led to the two voluntary reorganizations of 1882 and 1888 was the fear that the reorganized company would be unable to secure a charter enabling it to hold coal lands. Because of this fear, the plans of both of these reorganizations treated the security holders so liberally that the reorganizations benefited the road but little. Thus in the reorganization of 1882 the fixed charges were actually increased from $7,700,000 to $11,000,000 a year, an increase of 49 per cent. In that of 1888 the fixed charges were reduced slightly, less than 8 per cent, whereas the average reduction in fixed charges for involuntary reorganizations is much greater. In many instances an old and liberal charter, or merely a specially useful provision of one, has been considered so valuable that it has appeared cheaper in the end to pay off a recalcitrant group of minority security holders than to eliminate them through a foreclosure sale involving the forfeiture of the charter.[m] The subject of voluntary reorganizations is briefly discussed again in the closing section of the chapter dealing with the reduction of fixed charges in current reorganizations. (Book V, Chapter VI.)

The Appointment of a Receiver.—In the vast majority of cases, the first step in the legal procedure of the reorganization is the appointment of a receiver by a court of equity.[n] It can-

---

[m] Numerous instances are cited by Cleveland and Powell.[16] For example, the Fort Worth and Denver City, and the International and Great Northern, two roads traversing Texas, were reorganized without foreclosure in the middle nineties because their original charters protected them against certain laws of Texas regarded as burdensome.[17] "The affairs of the Wisconsin Central were readjusted without foreclosure in 1879, because the tax exemption on its land grant could not be transferred to another company." [18]

[n] The appointment of a receiver to conserve property is one of the so-called "extraordinary remedies" allotted by our Anglo-Saxon law to the equity courts. Such courts "will not lend their aid by the appointment of receivers when the persons seeking the relief have ample redress by the usual course of proceedings at law, or when the law affords any other safe or expedient remedy." [19]

"The court of equity can exercise its discretion as to whether it will appoint the receiver." [20]

The position of a receiver is very concisely described: "By means of the appointment of a receiver, a court of equity takes possession of the property which is the subject of the suit, preserves it from waste or destruction, secures and collects the proceeds or profits, and ultimately disposes of them according to the rights and priorities of those entitled. . . . The receiver appointed is the officer and representative of the court, subject to its order, accountable in such manner and to such persons as the court may direct, and having in his character of receiver no personal interest but that arising out of his responsibility for the correct and faithful discharge of his duties." [21]

The duties of receivers for public utility corporations are briefly described by Judge Lacombe: "Their (the receivers') sole functions are to hold the property intact, operating it as efficiently for the public utility as their resources will permit, to ascertain the liabilities, to marshal the assets and eventually . . . to sell it to the best advantage and to apply the proceeds ratably to the payment of the liabilities." [22]

---

[16] Railroad Finance, 248 (1912).

[17] 54 Chron. 366; 62 Chron. 40.

[18] Cleveland and Powell, Railroad Finance, 249 (1912). See also note (zz) of present chapter. Also observe the text and accompanying notes on page 1083.

[19] High, J. L., A Treatise on the Law of Receivers, 16.

[20] Mil. & Min. R. R. Co. v. Soutter, 2 Wall. 510 (1864). Also 8 Biss. 247.

[21] Beverly v. Brooke, 4 Grat. 187.

[22] Penn. Steel Co. v. N. Y. C. Ry. Co., 157 Fed. 440 (1907).

For brief and comprehensive accounts of the appointment and duties of receivers, see the two essays by Byrne, J., and Cravath, P. D., Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation (1917), being addresses delivered in 1916 at the instance of the Association of the Bar of the City of New York by distinguished practicing lawyers. These two essays, together with the lectures by the late Adrian H. Joline in 1909 at Harvard, are the best available brief summaries of legal procedure of a modern corporate reorganization.

There have been a large number of periodical articles dealing with railroad not, however, be stated that all receivership proceedings arise from anticipated or actual failure.[o] Historically the current

---

[o] In the first place, especially of recent years, receivership proceedings have been instituted or threatened by state or federal officers for alleged violation of the Sherman Anti-Trust Act of 1890.

The number of receiverships resulting from dissensions, disputes and intercorporate intrigues is legion. It was alleged that the Cincinnati and Eastern Railway went into the hands of receivers as part of the consummation of a plan to secure the road for less than its value.[23] Some stockholders of the Ohio and Mississippi Railroad declared that its collapse and receivership in 1876 was part of a concerted plan on the part of the Baltimore and Ohio Railroad to secure control.[24] Probably the real cause was the excessive and unwarranted cost of building the Louisville branch. Receivers were appointed for the Cincinnati, New Orleans and Pacific Railway in 1893 in order to protect the road from liability for stock fraudulently issued by a former secretary.[25] In 1904 the Eastern Ohio Traction Company went into the hands of receivers because of the fear of damage suits resulting from a wreck on the Chagrin Falls branch. Receivers have been appointed in several cases because of controversies over leases as in the case of the Eastern Railroad of New Hampshire in 1877, and the Denver and Rio Grande in 1879. The old Indianapolis, Bloomington and Western Railroad had leased the Cincinnati, Sandusky and Cleveland. A controversy arose and the former road was placed in the hands of receivers in order that the controversy might be settled.[26] Instances also exist where a receiver has been appointed to settle controversies existing between opposing interests. The St. Louis, Vandalia and Terre Haute was controlled for many years in the interest of the Pennsylvania Company. The minority stockholders of the former objected to the use made of the apparent net earnings and a receiver was appointed in 1902 to settle the controversy.

Swain gives instructive instances among early receiverships of exceptions to the rule that failure is the universal condition of receiverships. The Cleveland, Delphos and St. Louis Railroad was placed in the hands of receivers in 1884 and the Tennessee Central in 1895 in order to complete construction. The directors sought receivership for the Hutchinson and Southern in 1893 to transfer control from a county to a federal court.[27]

In more recent corporate history, the Kansas Natural Gas Company was thrown into the hands of federal court receivers in 1912 to protect the company from what was regarded as the unlawful demands by state and municipal authorities, the federal court being considered able to prevent the sale of gas at less than cost. In 1911 the La Crosse Water Power

---

receiverships: Caldwell, H. C., "Railroad Receiverships in Federal Courts," 30 Am. Law Rev. 161 (1895); Bennett, A. S., "Railroad Receiverships," 6 Oregon Bar Assn. Pro., 47 (1886); Crowell, J. F., "Railway Receiverships in the United States," 7 Yale Rev. 319 (1898); Swain, H. H., "Economic Aspects of Railroad Receiverships," 3 Economic Studies, 53 (Am. Ec. Assn., 1898); Daggett, S., "A Study of Railroad Receivership," 37 Ry. Gaz. 206 (1904); Daggett, S., "Recent Railroad Failures and Reorganizations," 32 Quart. Jour. Econ. 446 (May, 1918). Special articles will be referred to under special topics.

For the more general works see Alderson, W. A., A Practical Treatise on the Law of Receivers; High, J. L., A Treatise on the Law of Receivers; Jones, S. W., A Treatise on the Law of Insolvent and Failing Corporations.

[23] 8 Ry. Age 596. See also F. L. T. Co. v. N. Y. & Nor. Ry. Co., 150 N. Y. 410 (1896).

[24] 14 Chi. Ry. Rev. 29; 16 Chron. 392; 22 Chron. 526.

[25] Hollander, J. H., "The Cincinnati Southern," 12 Johns Hopkins Univ. Studies 1 (1894).

[26] 43 Chron. 515.

[27] Swain, H. H., "Economic Aspects of Railroad Receiverships," 3 Economic Studies 90, 94 (Am. Ec. Assn. [1898]).

procedure has developed by a slow evolution. It represents the gradual transition from a complex, haphazard procedure to enforce railway obligations, current fifty years ago, to the relatively simple and orderly procedure of the present time.

Early Receivership Procedure.—In the earlier years, roughly, before the panic of 1873, corporate mortgages were construed literally. In case of a default in bond interest the trustee of the mortgage might acquire possession and management of the railway property, as the strict construction of the mortgage instrument permitted, or a receiver might be appointed at the instance of an antagonistic creditor.[p] The details

---

Company was placed in receivers' hands to protect the company from damage suits caused by inability of the company to deliver current contracted for, on account of low water and the breaking of dykes.

[p] On default, the bondholder or his trustee waited during the period of grace, from thirty days to six months or even longer, and then began a foreclosure suit. In the absence of a receiver, the trustee of the bonds would assume the management of the railway. Notable case, Hartford, Providence and Fishkill Railroad, 22 Chron. 304. The old Hartford and Connecticut Valley, in financial straits, was operated from July, 1876, to January, 1878, by the trustee of the Second Mortgage Bonds, and from January, 1878, to July, 1880, by the trustee of the First Mortgage bondholders. In rare instances, such action has actually been preferred by the court to the appointment of a receiver on the ground that less harm would be done to all the parties concerned.[28] But, owing to the variety of mortgages and the divergence of interests, this mode of procedure has been found to be cumbersome and prolific of disputes. Furthermore, with the growing consciousness that railroads were public enterprises, the courts were at first reluctant and later refused to extend to the mortgage trustees the full power the letter of their mortgage instruments implied, so that the trustees found their management hampered.

A transitional form, between trustee management and court management of an embarrassed corporation is the management by some public officers. It was rare, but occurred, nevertheless, especially in New England. Thus the Connecticut Central Railroad was surrendered to the State Treasurer of Connecticut in April, 1880. A similar disposition was made of the Hartford and Connecticut Western Railroad.

Crowell calls the transition from trustee management to receivership in cases of financial distress "the history of the evolution of responsible management in an entirely new species of corporate enterprise, involving a unique complex of interests individual and social."[29] In these early railroad receiverships, there was invariably an actual, not merely fictitious, opposition between the parties praying for the appointment of a receiver and the answer by the railroad's attorneys. The action was then, as now, of the procedure were distinctly matters of accident, the only certain thing being a variety of suits and countersuits, all based on the desire of some faction to gain a temporary advantage through legal process.

---

[28] Tysen v. Wabash R. R., 8 Biss. 247.

[29] Crowell, J. F., "Railway Receiverships," 7 Yale Rev. 330 (1898). For brief discussions of trustee management and the difficulties involved, see Barrett, C., "Dangers to Bondholders," etc., 11 Ry. Gaz. 385 (1879); Crowell, J. F., "Railway Receiverships in the United States," 7 Yale Rev. 327 (1898); Cleveland and Powell, Railroad Finance, 230 (1912); Ripley, W. Z., Railroads, Finance and Organization, 384 (1915).

Late Receivership Procedure.—The first period ended, and what we might call the second period of receivership procedure began, with the failure of the Wabash Railway in 1884.[q] This important failure and the resulting reorganization were epoch-making in many respects, but in none more than in the procedure by which it passed into the hands of the court. It was well known at the time that the Wabash system was unstable financially, but there had been no specific failure to meet any of its obligations. Yet just before the inevitable default on one of its thirty-odd mortgages, the officials of the road appeared before a federal court, and asked, on the petition of the road itself, that receivers be appointed. "If the lines," the petition reads, "of the road are broken up and the fragments thereof placed in the hands of various receivers, and the rolling stock, materials, and supplies seized and scattered abroad, the result would be irreparable injury and damage to all persons having any interest in said line of road." The peti-

---

usually initiated by a creditor's bill, claiming that the means for satisfying the creditor's claim was in jeopardy. This action by a creditor might or might not be a part of a contemporaneous action by a mortgage trustee seeking to assume the control and operation of the railway property. At all events, an officer of the corporation ordinarily appeared in honest opposition to the proceedings, and, as a result of the evidence presented by both sides, the court obtained some inkling of the truth.

[q] The details of this particular reorganization are given in summary form in a brief outline of the history of the theory of railroad reorganizations.[80]

Crowell believes that the modern doctrine of railway receivership proceedings—in which the railroad itself may be an active or passive participant in placing itself under the administration of the court—"received its earliest formulation in the South." He cites as a leading case Meyer v. Johnston, 53 Ala. 237 (1875). This case contains an elaborate discussion of the rights of a court of equity in appointing receivers at the request of stockholders.[81] Unquestionably the principle had been tacitly admitted in certain courts before its explicit acknowledgment in the Wabash case.[82]

[80] See Book V, Chapter IV, page 986.

[81] See also 18 Grattan 819.

[82] See also Jones, L. A., "Receivers of Railways," 4 Southern Law Rev., 18 (1878).

tion was granted. A corporation had placed itself in the hands of receivers.

The procedure in connection with the receivership of the Wabash Railway was heralded by all students of law as revolutionary and establishing a new interpretation of the theory of receiverships. Yet the action of the federal judge was fully sustained by the United States Supreme Court.[r] And occur-

---

[r] At that time the whole Wabash system consisted of over fifty subsidiary parts; it extended into six states. The federal justice who made the revolutionary decision saw fit later to defend his action as follows: "It was an application by the corporation itself, concerning which a great deal of comment has been made elsewhere. . . . I hesitated. I found that Judge Shipman, a very learned and able judge, had gone over *in extenso* that class of thought. After further consideration with respect thereto, I reached the conclusion that his views were correct, to wit: Here is a vast system, extending through many states and many judicial districts. A default, it was certain, would be made in a few days. What should be done? The interests of all concerned required that some judicial action should be had for the conservation of those interests—stockholders, bondholders, creditors at large."[33] Wabash, St. Louis & Pac. Ry. Co. v. Central Trust Co., 22 Fed. 138 (1884); Quincy, Miss. & Pac. R. R. v. Humphreys, 145 U. S. 82 (1892); St. Joseph & St. Louis R. R. v. Humphreys, 145 U. S. 105 (1892).

Chief Justice Fuller himself quotes the words of one of the attorneys that the bill was "without precedent"[34] yet approved the principle on the ground of public policy. "We have seen," he said, "that the theory of this bill was that an insolvent railroad corporation may, in the public interest, and for the benefit of all its various creditors, surrender its property to a court of equity, to be preserved and kept in operation until it may be disposed of according to the several private rights concerned."[35]

Notwithstanding, however, the explicit approval by the United States Supreme Court, the doctrine was condemned by various state courts on the previously acknowledged presumption that the petition for the appointment of a receiver must represent an "actual controversy." Such a petition (as in the Wabash case), said the Missouri Supreme Court, "is simply a petition by a debtor for the appointment of a receiver to manage and carry on its business, so that its creditors cannot enforce their legal rights in the courts of the country. . . . The filing of that petition no more instituted an actual controversy between contending suitors than would the filing of the Lord's Prayer. It laid no foundation whatever for the exercise of the jurisdiction of the court to appoint a receiver."[36] Nevertheless, these outcries on the part of state courts have availed little, and receivership petitions, instituted directly or indirectly by large public utility corporations, have been sustained uniformly by the United States Supreme Court. The whole subject has received extended treatment in an opinion which promises to become a leading case on the subject.[37]

---

[33] 29 Fed. 618, 623 (1886).

[34] 145 U. S. 82, 95.

[35] St. Joseph & St. Louis R. R. Co., v. Humphreys, 145 U. S. 105, 113 (1892).

[36] State re Merriam v. Ross, 122 Mo. 435 (1894).

[37] Re Metropolitan Railway Receivership, 208 U. S. 90 (1908). The significance of the Wabash case has warranted extended discussion. Besides the cases cited in this note, see 38 Chron. 639; "A Chapter of Wabash," 146 North Am. Rev. 178 (1888); "The Wabash Receivership Case," 21 Am. Law Rev., 141 (1887). Also comments in

ring as this did, in the period just before the many railway receiverships of the nineties, the Wabash receivership established the practice of the so-called "friendly" or consent receiverships for large railway corporations; and the procedure was soon applied to local utilities [s] and later to industrials.[39] These consent receiverships are the rule for all large corporate failures.

In the words of the late Adrian H. Joline:

"Apparently well-established principles of law, based on economic and social expediency, enable every company in difficulties, which can find a non-resident creditor, willing to act, to place itself in the possession of a federal court receiver whenever it pleases." [t]

---

[s] Judge Lacombe succinctly summarized the situation in an important opinion. "Under authority conferred by the State and by various local authorities they are principally engaged in the means whereby streets, avenues and public places in the State are lighted and the public safety and comfort thereby promoted. They are corporations of public utility, and if they did not themselves light these localities the public authorities would, no doubt, be constrained to do so themselves. By reason, moreover, of the circumstance that they are given the authority with—to a certain extent—the right of exercising eminent domain, they are correlatively charged with a duty to the public which is no part of the obligations of ordinary corporations engaged in manufacturing, trading, printing, publishing, mining or mercantile pursuits. And as a result, when financial adversity overtakes them, there are interests which have to be considered other than those which require attention when these ordinary corporations of the enumerated classes become insolvent.

"In the case of a public utility corporation, such as these, the public itself, the community in which the corporation is rendering service, has a right superior even to creditors of every class, and which right cannot be extinguished by the payment of a dividend in money. Moreover, the public safety and comfort imperatively demand that, whatever else may happen, the corporation, devoid of ready cash though it be, shall not make default on the public obligations with the result of plunging the community in darkness or stopping the transportation of passengers, and that in some way or other, the public service shall be rendered while the financial affairs of the company are being wound up."[38]

[t] In many instances minority interests have sought to set aside consent receiverships on the ground of dishonest collusion. For illustration, when the Philadelphia and Reading Railroad had failed in 1893, after riotous speculation by the president, this same president was appointed one of the receivers. The junior bondholders petitioned the court saying the ("friendly") creditor "did not file his bill in good faith on his own behalf

---

Cleveland and Powell, Railroad Finance, 235 (1912); Ripley, W. Z., Railroads, Finance and Organization 385 (1915). See also page 949 and note (t) concerning friendly receiverships.

[38] Farmers' Loan & Tr. Co. v. Meridian Water Co., 139 Fed. 661 (1905).

[39] Hollins v. Brierfield Coal & Iron Co., 150 U. S. 371 (1893) and Guaranty Trust Co. v. Internat. Steam Pump Co., 231 Fed. 594 (1916).

Usual Practice in Consent Receiverships.—Brushing aside exceptional conditions, the usual practice in the consent receiverships may be very briefly stated. The necessity or desirability of a receivership having been agreed upon by the directors (usually in a secret meeting),[u] some friendly general creditor,

---

and on behalf of all other holders of bonds, but at the request and for the benefit and protection of the men who were then managers of the Philadelphia and Reading Railroad Company and the Philadelphia and Reading Coal and Iron Company, and that the suit was not being pressed with due diligence."[40]

One of the most barefaced admissions on the part of a railroad management of the prostitution of court procedure to private ends is afforded by a statement to the stockholders of the Eastern Ohio Traction Company (dated February 15, 1904): "The appointment of a receiver is only a friendly arrangement, intended to facilitate plans for reorganization, which when accomplished will increase earning capacity."[41]

In one or two rare instances the "friendly" receiver appointed on the petition of the corporation itself has been interpreted more as an agent of the corporation, under the protection of the court, than as an officer of the court. "It is but just that a receiver so appointed should be held to be the corporation's agent."[42] This is probably not good law, as a receiver under whatever conditions appointed "derives his authority from the court and from the parties at whose instance he is appointed. He acts in behalf of no particular interest, but guards the rights of all."[43] "The utmost effect of his appointment is to put the property from that time into his custody as an officer of the court."[44] And the absolute neutrality of the receiver as an agent of the court is justified by a long line of Supreme Court decisions.[45] Lecture before Graduate School of Business Administration, Harvard University (April 4, 1910).

[u] The receivers for the old New York and New England Railroad were obtained at two o'clock in the morning for fear that attachments would

---

[40] 18 Ry. Age 735.

[41] 78 Chron. 768.

[42] Texas & Pac. Ry. Co. v. Gay, 86 Tex. 571.

[43] 198 Fed. 721, 728.

[44] 136 U. S. 223, 236; quoted, approvingly, by Chief Justice Fuller, 145 U. S. 82, 97.

[45] 14 How. 52; 14 How. 368; 17 How. 322; 136 U. S. 87; 136 U. S. 223; 149 U. S. 473; 208 U. S. 360. The history of the whole subject of consent receiverships can be followed from a few leading cases: Meyer v. Johnston, 53 Ala. 237 (1875); Wallace v. Loomis, 97 U. S. 146 (1877); Wabash, St. Louis & Pac. Ry. Co. v. Cen. Trust Co., 22 Fed. 138 (1884); Morgan's R. R. & Steam Co. v. Texas Cen. Ry., 137 U. S. 171 (1890); Quincy R. R. v. Humphreys, 145 U. S. 82 (1892); St. Joseph & St. Louis R. R. v. Humphreys, 145 U. S. 105 (1892); Hollins v. Brierfield C. & I. Co., 150 U. S. 371 (1893); Cen. Trust Co. v. McGeorge, 151 U. S. 129 (1894); Compton v. Jessup, 68 Fed. 263 (1895); Continental Trust Co. v. Toledo, St. Louis & K. C. R. R. Co., 82 Fed. 642 (1897); Chapman v. Atlantic Trust Co., 119 Fed. 257 (1902), 145 Fed. 820 (1906), 208 U. S. 360 (1908); Dickerman v. Northern Trust Co., 176 U. S. 181 (1900); Great Western Mining Co. v. Harris, 198 U. S. 561 (1905); Blair v. Chicago, 201 U. S. 400 (1906); Horn v. Pere Marquette Ry. Co., 151 Fed. 626 (1907); Wabash Rd. v. Adelbert College, 208 U. S. 38 (1908); Re Metropolitan Ry. Receivership, 208 U. S. 90 (1908). The general subject of consent receiverships has been the subject of numerous critical articles: Cohn, M. M., "Railroad Receiverships," 19 Am. Law Rev. 400 (1885); Bartol, W. H., "The Danger of Friendly Receiverships," 32 Popular Science Monthly 236 (1887); Woolman, H., "The Bane of Friendly Receiverships," 158 North Am. Rev. 250 (1894); Sterne, S., "Recent Railroad Failures and their Lessons," 17 Forum 19 (1894); Taft, W. H., "Recent Criticism of the Federal Judiciary," 18 Am. Bar Assn. Rep. 258 (1895); Caldwell, H. C., "Railway Receiverships in Federal Courts," 30 Am. Law Rev. 161; Chamberlain, "New-Fashioned Receiverships," 10 Harvard Law Rev. 139; editorial, Bradstreet's, January, 1894; 1900 I. C. C. Rep. 83.

with a claim in excess of three thousand dollars, not residing in the same state as that in which the corporation has its main office,[v] is asked to allow his name to be used in the receivership proceedings. Accordingly the attorneys for the corporation prepare the necessary bill of complaint to which the creditor complacently signs his name. The attorneys, at the same time, prepare the corporation's answer which admits the allegations of the creditor's bill and prays for the appointment of a receiver.[w] The court grants the prayer and appoints one or more receivers. Subsequently, the trustee of the general junior mortgage brings a foreclosure bill in the court of primary jurisdiction and the same receivers are appointed as under the creditor's bill.[x] At least one receiver is one of

---

be placed on the company's property the following day.[46] Receivers for the old National Cordage Company were appointed at ten-thirty o'clock at night, after a day of wild fluctuations in the quoted prices of the company's securities on the New York Stock Exchange. Only in the preceding twenty-four hours had the directors come to realize the serious plight into which the corporation had fallen. The receivership proceedings of the Chicago, Rock Island and Pacific Railway, in April, 1915, came suddenly and as a distinct shock to the business community. The contemplated action was known apparently only to the inner circle of directors, one director going so far as to say that he had been unaware that a receivership was being considered. There had been manipulation of the price of the stock immediately before the receivership, and the price declined abruptly immediately thereafter.

[v] This precaution is necessary in order to bring the action in the federal courts. If it is desired to have the receivership in the state courts, a resident creditor is selected.

[w] This is called the primary bill. Ancillary bills are filed in every judicial district in which the corporation owns property.[47] These ancillary bills must be counterparts, in all important particulars, of the original bill[48]—and further state that the court of primary jurisdiction has appointed receivers.

[x] Ordinarily the receivers appointed by the court of primary jurisdiction are respected by other courts, and this court will retain its control to the end of the controversy.[49] As a result of the tangle over the receiverships following the last failure of the Northern Pacific Railroad, four justices of the Supreme Court declared that the suit should be "commenced in the circuit court of the district in which the principal operating offices are situated and in which there is some material part of the railroad."[50]

---

[46] 38 Chron., 30.

[47] Early leading case, Booth v. Clark, 17 How. 322 (1854).

[48] Merch. Trust Co. v. Kanawha & Ohio Ry., 39 Fed. 337 (1889).

[49] High, J. L., A Treatise of the Law of Receivers, 73; Muller v. Dows, 94 U. S. 444 (1876).

[50] Farmers' Loan & Tr. Co. v. Nor. Pac. Ry. Co., 72 Fed. 26 (1896). See Daggett, S., Railroad Reorganization, 298 (1908); Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 90, 157 (1917).

the old officials of the corporation, familiar with routine administration,[y] whose name is suggested to the court at the time. The other receiver is a lawyer or publicist in whom the court has explicit confidence.[z] At all events the court in its omnipotence is presumed to supply the omniscience to make profitable a business which has proved unprofitable.[aa]

As soon as the receiver of a corporation has been appointed, he assumes the management of the business. Ordinarily, especially with large corporations such as railroads and traction companies, the receiver makes very few changes in the personnel of his organization, although he may alter entirely the general policy of the corporation in many important respects. For permission to enter into or cancel important contracts, a receiver will usually seek the consent of the court; he must also obtain permission of the court in order to issue receiver's certificates and to expend large sums for the improvement of the property. But in all the details of actual management the receiver is free to follow his own judgment.

---

[y] The only statistical study of the relative frequency of such appointments, that has come to the writer's attention, is that of Swain regarding railway receiverships. He considers approximately 150 receiverships, from 1867 to 1897. These covered the following appointments: old presidents, 80 cases; general managers, 25 cases; superintendents, 17 cases; vice-presidents, 16 cases.[51]

[z] Thus in the receivership of the Chicago, Rock Island and Pacific Railway (April, 1915) Judge Carpenter of the Federal Court appointed two receivers. One was H. U. Mudge, former president of the road and an appointee of the Reid-Moore group, who were responsible for the misfortunes of the road; and the other was J. M. Dickinson, a distinguished publicist, in whom the court had justifiable confidence. The decree provided that Mr. Dickinson should have the deciding voice in case of any difference of opinion.

[aa] Sterne, an astute student of railroad finance, remarked many years ago: "A railroad official, in consequence of his incapacity or misfortune, or as the victim of a vicious system . . . is appointed receiver by the courts . . . and continues to earn probably a larger salary than he did as president. . . . This evil is a monstrous one."[52]

Ripley remarked, twenty years later: "The anomaly of rehabilitation entrusted to the very same persons who had brought about the failure is difficult to defend."[53]

In re Metropolitan Railway receivership, 208 U. S. 90 (1908), the

---

[51] Swain, H. H., "Economic Aspects of Railroad Receiverships," 3 Economic Studies, 53 (Am. Ec. Assn., 1898).

[52] Sterne, S., "Recent Railroad Failures and Their Lessons," 17 Forum 31 (1894).

[53] Ripley, W. Z., Railroads, Finance and Organization, 387 (1915).

Investigations Succeeding Receivership.—During this period, while the receiver is in actual control of the property of the corporation, the various committees are at work seeking to find a substantial basis upon which to establish their plan of reorganization.[bb] This requires a knowledge of at least three sets of facts. First, they must ascertain by competent auditors whether or not the published reports of the corporation in the years preceding the failure were approximately true. The audit must not only verify the technical correctness of the books, but it must also determine whether or not the depreciation accounts were adequate, and if they were not—as was probably the case—the extent of the deficiency. The auditors must also ascertain whether or not all the equipment—machinery, merchandise, or rolling stock—claimed to be in fit, "usable" condition, is actually in use or in fit condition; they must check all the rentals, insurance policies, and intercompany contracts to be sure that the old managers have protected the company's contractual rights. The second set of facts is supplied by attorneys, acting for the reorganization committee. They have to do with the countless legal matters resulting from the general tangle: what contracts may be safely abrogated and what contracts must be fulfilled even at temporary losses, the amounts required to settle with parties holding contingent claims in order to forestall troublesome delays, the probable outcome of pending suits and the approximate expenses of the receivership and reorganization. The reorganization committees must supply themselves with a third set of facts, and since there are among their number distinguished bankers, they require no independent expert advice. These facts cover the general probability for the successful negotiation and sale of the securities of the reorganized corporation. The committees must assess accurately the probable effect of their reorganization plan on

---

Supreme Court sought to absolve the equity courts from any accusation of collusion. But the reasoning hides an obvious fact behind legal verbiage.

[bb] It is becoming the custom in receiverships, especially those of large railways, for the receivers to pretend not to concern themselves with plans for reorganization. Penn. Steel Co. v. N. Y. City Ry., 157 Fed. 440 (1907).

the market values of old and new securities; they must determine the limit of sacrifice stockholders will make without surrendering their interests, the relative marketability of long- and short-term bonds, the expenses and fees of underwriters and similar financial matters.

In the case of a reorganization of a large railway system the reorganization committee must also secure the reports of special traffic accountants working independently or in collaboration with the auditors. They must be able to make a nice determination of the relative and absolute earning capacity of the various parts of the railway system. This is important because only by classifying the subsidiary lines and leased lines according to their past earning capacity can the reorganization committees determine what parts of the railway system to retain in the subsequent reorganization and what parts to surrender.[cc] In addition the reorganization committee will probably require of engineers a careful summary of those expenditures which must be made in the immediate future and those which are to be recommended in order to increase materially the future earning capacity of the road.[dd] They may even

---

[cc] In the earlier reorganizations this classification, if any were made, was more or less a matter of guess-work. In the Wabash reorganization of 1887, all subsidiary parts were retained and approximately equal sacrifices enforced on all the branch line bondholders. In the Atchison reorganization of 1888, there was no attempt to separate the subsidiaries according to earning power. But in the Norfolk and Western reorganization of 1896 and in the voluntary reorganization of the Baltimore and Ohio in 1899 there was a guess-work attempt to apportion the sacrifices of the branch line bondholders according to the probable relative earnings of the branches. In both the St. Louis and San Francisco, and Missouri Pacific reorganizations in 1916 and 1917 efforts were made by the general reorganization committees to determine the actual earning capacity of the subsidiary and branch lines and to apportion the sacrifices accordingly. The committees reached their findings with the help of elaborate reports by engineers, accountants, and traffic experts.

During the receivership of the Bay State Street Railway in 1918, accountants classified the unprofitable branch lines as: (1) those which would pay, provided there was a reasonable increase in fare; (2) those which would pay, provided there was a reasonable increase of fare and substantial subsidies from the local towns; (3) those which would not pay under any reasonable conditions.[54]

[dd] After the appointment of receivers of the Chicago, Rock Island and

---

[54] For the actual working out of this classification, after the consummation of the reorganization of 1919, see a summary article in *The Boston Evening Transcript*, September 24, 1919.

secure a physical valuation of the road.[ee] The committees must know these facts in order to estimate the amount of new money to be provided by the plan of reorganization and relative burden of fixed charges that the reorganized road may be

---

Pacific Railroad in 1915, several more or less elaborate reports were prepared by engineers. The report of J. W. Kendrick, a distinguished railroad engineer, has become quite a classic because of its thoroughness and comprehensiveness. The following summary indicates his recommendations for expenditures and his estimates of savings to be accomplished thereby:

	Additions and Betterments	Operation	Estimated Annual Savings
Freight Loss and Damage	$..........	$ 47,200	$ 520,720
Handling Less than Carload Freight	9,437	....	116,200
Reduction in Passenger Train Service	....	....	1,000,000
Light Tonnage Movement out of Chicago	....	....	185,000
Economies in Operation	....	....	2,523,342
Grade Revision or New Line	3,905,910	....	....
Lap Sidings or Second Track	1,852,000	....	....
Motive Power	990,000	....	800,000
Improvements to Existing Locomotives	1,018,675	159,100	....
Freight Equipment	2,423,256	907,174	563,470
Freight Equipment (M. C. B. repair bills)	....	....	381,700
Rails (⅔ of five-year estimate)	740,447	2,190,133	....
Rail Sawing Plant	40,000	....	....
Bank Widening	225,000	225,000	....
Ballast (⅔ of five-year estimate)	3,361,542	380,165	....
Tie Plates	3,000,000	....	....
Tie Plants and Ties	300,000	....	230,000
Yards and Terminals	2,207,000	400,000	....
Side Track Extensions	250,000	....	....
Track Maintenance	176,000	....	450,000
Bridges	279,150	430,400	....
Track Scales	38,500	4,000	....
Track Elevation and Grade Separation	3,392,000	400,000	....
Fences—Elimination of Stock Claims	309,348	....	200,000
Signal Department	291,248	....	....
Telegraph and Telephone Departments	275,000	....	257,260
Purchasing and Store Departments	120,000	....	2,216,800
Miscellaneous (estimated)	2,000,000	500,000	....
Total	$27,204,513	$5,643,172	$ 9,444,492
Rentals—Denver & Rio Grande			167,500
On Pueblo Union Depot			8,891
On Peoria Railway Transfer Co			18,800
Trinity & Brazos Valley			124,139
Hire of Equipment			700,000
Grand Total Estimated Annual Savings			$10,463,822

Report of Kendrick, J. W., page 605.

The reorganization committee of the unfinished Kansas City, Mexico and Orient Railway obtained the separate reports of four well-known railroad engineers before offering a final plan of reorganization.[55] This plan is itself a very exhaustive and comprehensive analysis of a bankrupt railroad.

[ee] Before the reorganization of the Pere Marquette Railroad in 1916, a physical appraisal of the property was made by Professor M. E. Cooley under the direct instructions and immediate supervision of the Michigan Railroad Commission. The cost of this appraisal, amounting to $80,808, was paid at first by the receivers of the Pere Marquette Railroad and ultimately by money provided in the reorganization.

---

[55] Plan of Dec. 8, 1915, page 3.

safely asked to bear. All this mass of detail, the reorganization committee must weave into the pattern of its reorganization plan.

In all this work of preparation of the final reorganization plan, the receivers of the corporation are not considered.[ff] But they report continually to the court the results of their administration of the corporation's property. From these reports the reorganization committees can form estimates of the current earning capacity of the business.[gg]

[ff] This statement is subject to exceptions—more twenty-five years ago than now. For example, the Philadelphia and Reading reorganization plan of January, 1894, was prepared by the receivers. Receivers' plans of reorganization for industrials were quite common before 1900.[56] Mead, writing in 1901, after the railroad reorganizations of the nineties, states: "The receivers or the directors may themselves formulate a plan of reorganization, or they may appoint a committee to formulate such a plan, to which they invite the assent of the security holders."[57] This assertion has now little significance. The tendency is for the receivers to concern themselves but little with the preparation of the plan, as courts are insisting that they remain absolutely neutral in all questions likely to cause controversy among the various security holders.

[gg] Based on the improvements summarized in note (dd), Kendrick estimated the earnings of the reorganized Chicago, Rock Island and Pacific Railroad as follows:

	1919	1921
Gross Earnings	$74,550,000	$76,350,000
Operating Expenses	50,918,000	48,940,000
Operating Ratio	68.3%	64.1%
Net Earnings	$23,632,000	$27,410,000
Taxes	3,986,000	4,286,000
Net Income	$19,646,000	$23,124,000
Other Income	1,368,000	1,368,000
Total Net Income	$21,014,000	$24,492,000
Rentals, etc	2,987,000	2,987,000
Balance	$18,027,000	$21,505,000
Interest Balance	13,724,000	14,124,000
Surplus	$ 4,303,000	$ 7,381,000

The actual gross earnings of the road proved very much greater than Kendrick's estimates but the costs of operation increased even more so that the net results were less satisfactory than his estimates would lead one to anticipate.

The same engineer also made an exhaustive report, prior to the reorganization, on the future earnings of the St. Louis and San Francisco system. This is summarized by the Missouri Public Service Commission:

"Mr. J. W. Kendrick, an engineer, who made a comprehensive report on the system, made estimates of future net earnings increasing from

---

[56] 60 Chron., 1106.

[57] Mead, E. S., "The Reorganization of Railroads," 17 An. Am. Ac. Pol. Soc. Sci. 210 (1901).

Sometimes, however, the investigations of the reorganization committee involve the time element, and it is necessary to wait until the earning capacity of the corporation, under the receivership, has been fully tested. This is particularly important if the reorganization committee is dealing with a small railroad which, before the receivership, was an integral part of a larger railway system. Not only must a considerable period elapse before the publication of the reorganization plan in order to allow the small independent road to indicate its capacity to originate independent traffic, but the receiver requires time to develop a new business organization and a new personnel.[hh]

Formation of the Reorganization Plan.—From the results of these investigations the general committee works out

---

approximately $13,000,000 in 1915 to approximately $19,500,000 in 1923. His estimate for the year ending June 30, 1916, was $13,400,000 net operating income, to which should be added approximately three-quarters of a million of miscellaneous income, making a total of a little over $14,000,000 for this year."[58] The published net earnings of the St. Louis and San Francisco Railway (the reorganized company) for the year ending June 30, 1916, were actually $14,181,327.

[hh] Examples are the old Colorado Midland, when it was separated from the Atchison, Topeka and Santa Fé in the last reorganization of the latter road, and the reorganization of the Buffalo and Susquehanna Railroad in 1914, after it had been separated from the railway bearing the same name.[59] The reorganization committees of the Chicago and Eastern Illinois Railroads waited some time to ascertain its independent earning capacity, after it was separated from the St. Louis and San Francisco railroad.

[ii] For example, there were no less than seventeen separate plans advanced in connection with the three reorganizations of the Philadelphia and Reading Railroad: reorganization of 1882—6 plans; reorganization of 1887—6 plans; reorganization of 1896—5 plans. An illuminating survey of the almost hopeless confusion of conflicting committees and conflicting plans in an old reorganization is given in Daggett's two chapters covering the three reorganizations of the Reading.[60]

A reorganization plan for the old National Cordage Company was published within thirty-six days of the failure on May 5, 1893.[61] But the plan was so premature that it had to be set aside entirely, as soon as the seriousness of the failure was fully realized.

The practice of announcing a plan of reorganization, almost simultaneously with the announcement of the failure, is still to be found among small industrials and local public utilities when the embarrassment can be attributed to a single obvious cause.

---

[58] Case 815, *Opinion and Order,* dated Dec. 22, 1915, page 27.

[59] Book V., Chapter VI, page 1077.

[60] Daggett, S., Railroad Reorganization, Chaps. III and IV (1908).

[61] 56 Chron., 973 (June 10, 1893).

a single reorganization plan which is based on the most accurate and comprehensive knowledge available. No definitive plan is now advanced in haste. But this orderly procedure has developed, however, only within the last twenty years. Formerly plans were propounded by one committee after another, beginning almost as soon as the rumors of the impending disaster were heard.[ii] In contrast to the reorganization before 1900, it may therefore be said that the contemporary practice is to lengthen the period of preliminary investigation and adjustment, during which time no reorganization plan is published, and, so far as possible, to shorten the period of public discussion over the plan through a preliminary agreement on the part of all the influential interests to support the final plan as soon as it is published. Practically all the recent reorganizations of large corporations have run along smoothly in an orderly manner to outward appearances. The Chicago, Rock Island and Pacific, the St. Louis and San Francisco, the Pere Marquette—all of them reorganizations of railroads involving a multitude of conflicting interests—were consummated without apparent external friction once a definite and final plan had been agreed to secretly by the various committees which represented the important securities.

The most difficult and important step in the reorganization procedure is to secure a complete outward harmony of all important interests, so that all may work for the success of a common plan. All, except perhaps the senior bondholders, must make some sacrifices. But the determining power lies usually with the committee representing those securities—usually the junior mortgage bonds or debentures—of which some sacrifice is required, but which is, nevertheless, in a relatively secure position as compared with the holders of the floating debt and the stocks.[jj] In other words, the determination of the plan is likely to be left to the factions which must make sacrifices. Of these, the party making the least sacrifice will probably have the deciding voice.

[jj] Stockholders' committees are rarer and have less influence in railroad reorganizations than in industrial or public utility company reorganizations; the failure of a railroad is likely to occur after the equity of the stockholders is exhausted, whereas in the case of an industrial failure the stockholders, just because the funded debt is proportionately

Out of the conflict of ~~opinions and interests, a plan of re~~organization is finally evolved which has the acknowledged support of all the committees representing the conflicting interests.[kk] This plan is published before the receiver surrenders

---

less, are more inclined to believe their equity is of considerable value. They will therefore organize themselves to protect it. Clearly the more real value the equity possesses, the more important will be the committee of the stockholders in determining the temper of the reorganization. In the Westinghouse reorganization of 1908, for example, the position of the stockholders was of importance, since the whole plan of readjustment turned on the terms on which they would consent to furnish new capital. On the other hand, if the equity is negligible and the whole weight of the reorganization falls on the creditors of the corporation, the stockholders may not concern themselves even to be represented in any stage of the reorganization. Before the reorganization of the Standard Rope and Twine Company in 1904 the affairs seemed so hopeless that the stockholders would not even come to a meeting. "Extraordinary efforts have been made to secure the attendance of the stockholders, either in person or by proxy, at the Annual Meetings, three adjourned meetings being called last year at none of which were there enough votes represented to enable the meeting to be held."[62] In the final reorganization they had no committee of their own and were wiped out, being informed by the income bondholders' committee (whose interests were naturally in conflict with those of the stockholders) that: "Notwithstanding their earnest, persistent and long-continued efforts, they have been unable to obtain any recognition of the stock in any plan for the reorganization of your company."[63]

[kk] Not always, even now, is this amicable settlement assured. The International Mercantile Marine Company was organized in 1902 as a combination of transatlantic steamship lines. It led a quiet, on the whole unsuccessful, existence down to 1914, when, owing to the general business depression, the company failed to earn the $3,248,000 required for bond interest. It passed into the hands of receivers in the spring of 1914, just on the eve of the opening of the Great War. There were 78 per cent accrued unpaid dividends on $51,700,000 preferred stock and over $7,000,000 bond interest in default. Presently a plan of reorganization was proposed which involved a wholesome reduction in capitalization and fixed charges. But it gave back to the common shareholder a mere pittance of an equity in the reorganized company. On the basis of the corporation's past history this reorganization plan was thoroughly wise and in accord with just and conservative financial practice. But the Great War had changed conditions entirely. The average annual net earnings of the years from 1902 to 1910—with inadequate depreciation charges—were less than $4,000,000. In the single year of 1915 the company earned, before war taxes and special depreciation reserves, over $40,000,000—more than ten times its previous average annual earnings. During the first two years of the Great War its net earnings were reported to exceed its total outstanding bonded debt. On the basis of this showing, the common shareholders organized a committee and fought the previous reorganization plan. A

---

[62] 1904, S. R. T. Co., Rep. 5.

[63] Circular of Oct. 30, 1905.

the property, or even before the foreclosure sale.[11] It is published with the recommendation of all the committees that it be accepted by the various groups of security holders. The

---

bitter controversy resulted. But the final plan was much more liberal to the common shareholders than was the plan which was first proposed.

Another case indicating friction in the working out of the reorganization plan is afforded by the difficulties encountered by a certain corporation promoted to undertake a hydroelectric development in Vermont. After the sale and hypothecation of upwards of $3,000,000 par value of bonds, certain creditors of the company found that through reckless mismanagement on the part of the managers the money had been spent without due regard to building up a closely organized development. The company defaulted on the interest charges and a committee was organized which solicited the deposit of bonds. After securing $700,000 or $800,000 of deposits a bondholder in New York employed a sharp attorney to organize another committee which should solicit the deposit of bonds in opposition to the first attorney. This committee succeeded in securing upwards of $500,000 of deposits, but beyond this point further progress was impossible as the undeposited bondholders, recognizing that a fight between the two committees had started, refused to deposit their bonds with either committee. Ultimately other persons injected themselves into the situation and for a considerable period of time there were at least five different interests fighting among themselves for control over the course of the reorganization.

[11] It is inexpedient for the members of the committee to take steps to secure the reorganization until after the plan has been announced. No such action is usually provided for in the original deposit agreement, and an assumption of authority would be interpreted by the security holders, and even by the courts, as evidence of coercion. In one noted case the deposit agreement under which the reorganization committee acted provided that the committee could buy the railway property, after it had announced a plan of reorganization. It bought the property before the announcement. The court decided this was a breach of contract, notwithstanding the very general powers granted the committee.[64] In order to forestall obstructionists, Cravath advises that a foreclosure decree be obtained before the announcement of the plan; and permission so to do must be included in the original deposit agreements.[65]

On the other hand, any such procedure prevents any voluntary settlement among the security holders on the basis of an eminently fair and advantageous plan—as in the Baltimore and Ohio reorganization of 1899. There was one notable case, the Texas and Pacific reorganization of 1887, in which a voluntary adjustment with all the security holders was made after the foreclosure sale, so that the sale was never confirmed.

It is, however, necessary to note, in passing, in view of the Tod case above mentioned, that the reorganization committees must not overstep any of the powers or limitations and restrictions specifically imposed upon them by the deposit agreements under which they are acting.[66]

It is quite common for the plan to be published as the joint work of all the committees. For example, the Metropolitan Street Railway reorganization plan of November 29, 1911, was signed directly by the "Five Per Cent Committee," the "Four Per Cent Committee" and the "Joint Committee." Ordinarily the "joint" or general committee is deemed to be acting for all the other committees.

---

[64] Industrial, etc. v. Tod, 180 N. Y. 215 (1905).

[65] Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 169 (1917).

[66] See also United Water Works Co. v. Omaha Water Co., 164 N. Y. 41 (1900).

latter are asked to become parties to the "reorganization agreement," which is the formal legal document that invariably accompanies "the plan."[mm] By so doing, they assent to the terms of the reorganization, and on paying their assessment, if any is called for, receive their allotted securities in the new corporation. Those who do not care to accept the terms of the reorganization are allowed to withdraw the securities originally deposited,[68] usually on the payment of a small fee to cover the expenses of the committee. If, as is probably the case, a very large proportion of the security holders consent to the conditions, the reorganization committee declares the plan operative, and the reorganization is finished except for the legal formalities.[nn]

Execution of the Reorganization Plan—Foreclosure.—These legal formalities are, however, often very perplexing, and depend largely on the attitude of the old security holders. If practically all the security holders accept the plan, surrendering their old stocks and bonds, then no pressure upon a recalcitrant minority need be exerted. There need be no judicial

---

[mm] Care should be taken to distinguish between the "reorganization plan" and the "reorganization agreement." The former is the short, comprehensive statement of the financial side of the reorganization; it is an easily understood document, free from legal verbiage, and intended for wide distribution. The "reorganization agreement" is an elaborate legal document. It covers the details of the "plan," together with a full and presumably exhaustive statement of the powers and limitations of the committee or committees which will carry out the "plan," the rights of the assenting security holders, and a detailed account of the machinery by which it is proposed to consummate the reorganization. Cravath writes an illuminating defense of the inordinate length of the modern reorganization agreement.[67]

[nn] Ordinarily finished. The plan having been declared operative, the various contracts of security holders, syndicate subscribers, and debt claimants become binding. But the plan may be subsequently modified—provided always that the modifications are acceptable to the contracting parties—and it may even be set aside entirely and a new plan adopted. Generally speaking, however, when the plan has been declared operative, it indicates that the main adjustments have been accomplished and only the loose ends remain unfinished. These may require considerable time, as the wheels of equity procedure move slowly, but to all outward intents and purposes the reorganization has been consummated.

---

[67] Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 176 (1917).

[68] Colonial Tr. Co. v. Wallace, 183 Fed. 896 (1911).

sale of the old corporation's property, and no surrender of its charter. This was what happened in the great reorganization of the Baltimore and Ohio Railroad in 1899. But a complete adjustment with all the claimants and security holders is usually impossible. Some persons will feel themselves aggrieved in any plan of reorganization, and there are always strikers—to be discussed presently—who will seek to impede the progress and try to create for themselves a nuisance value, in hopes that the reorganization managers will buy them off at some factitious price. To carry out the obvious will of the great majority of assenting claimants and security holders, the reorganization must be forced through and the dissenting minority and obstructionists settled with in a just and open manner fully approved by the court.[oo] This is accomplished by the judicial sale of the old corporation's property through a decree of foreclosure.

Foreclosure Sale.—In theory, at least, the foreclosure of a mortgage on any property, however extensive, is similar to that of the foreclosure of a mortgage on a house,[pp] but in actual practice the doctrine has been modified so far as it concerns the properties of large corporations, especially great rail-

---

[oo] The court, by approving of the conditions of the judicial sale, may indirectly force the dissenting minority to accept the plan of reorganization approved by an overwhelming majority of security holders. But the court cannot directly force a security holder to accept a plan. "It is clear that the courts cannot directly or indirectly rewrite this reorganization agreement."[69] This was tried in one notable case, but the United States Circuit Court of Appeals (Supreme Court Justice Brewer rendering the opinion) declared against any such use of the court's power on the ground that "there is no wide discretion vested in the chancellor which permits him to disturb contract rights—the rights of property. . . . It is not for the court to assume the power to compel because it believes it wise and good business. . . . Every man in this country decides questions in respect to his own property for himself."[70]

[pp] It is the customary practice for the trustee of one of the junior mortgages just above those underlying mortgages which are not to be disturbed in the reorganization, to move for a judicial sale of the corporate property of the railroad. This position is usually unopposed by the railroad.[71]

---

[69] Guar. Tr. v. Inter. Steam Pump Co., 231 Fed. 594 (1916).

[70] Merchants Loan and Trust Co. v. Chicago Rys. Co., 158 Fed. 923 (1907).

[71] For details of procedure, see Byrne, J., "Foreclosure of Railroad Mortgages," in Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation (1917).

way systems. The courts tolerate the doctrine that the "foreclosure proceedings of mortgages covering extensive railroad properties are not necessarily conducted with the limitations that attend the foreclosure of ordinary mortgages." [72] In fact, it was recognized long ago that the court might arrange the formal steps in the foreclosure with a view to facilitating the execution of a plan of reorganization already agreed upon and, by implication, approved by the court.[73] If need be, the court may even order a sale of the corporation's property before the status of different claimants is determined, on the assumption that the quicker the reorganization is carried out, the better it will be for all concerned.[74] Here, as elsewhere in this complicated subject, lies the general rule that the courts have sought to facilitate the adjustment of purely private dissensions with a view first of all to the larger questions of public policy. Judging from the words of perhaps the ablest student of reorganizations, they have not abused this power.

"It is a source of pride, or ought to be, to every lawyer and man of business, that as a rule our federal tribunals have so used their powers as to conserve the right of property and to bring about the greatest good to the greatest number regardless of mere technical rules." [75]

The next step is the "decree" of sale, according to which the court preserves the outward form of a foreclosure sale.[76] Owing to the fact that the foreclosure of the property of a great corporation requires far more capital than a single man or group of men can command, the court recognizes that there will be no competition at the foreclosure sale of the property. In order to prevent the various parties who have agreed among themselves upon a workable plan of reorganization from conspiring together to purchase the property for little and thus defeat the just claims of other creditors who have not pooled their interests, the court ordinarily fixes a minimum or "upset" price.[77] It is the amount which the receivers must realize from the property in order that the court shall confirm the sale. It amounts, practically, to the determination by the court of the price at which the reorganization committee may acquire the property of the old corporation at a public sale, and also of the conditions under which the committee must settle with the creditors who have not consented to its plan.[qq] There is, theoretically at least, a chance that other persons may care to pay more for the property than the reorganization committee and the general creditors not embraced in the committee's plan should be given—theoretically at least—an opportunity to bid in the property in satisfaction of their own liens.[rr] Moreover, the public sale preserves the form of legal procedure required in the foreclosure of a mortgage on a plot of land. But it is a foregone conclusion that the only bidder will be a representative of the reorganization committee, and his bid will represent a few dollars more than the court's upset price.[ss]

---

[72] Louisville Tr. Co. v. Louisville, N. A. & C. Ry. Co., 174 U. S. 674 (1898).

[73] Soye v. Central R. R. Co., 99 U. S. 334 (1878).

[74] First Nat. Bank v. Shedd, 121 U. S. 74 (1886). See also Ala. & Ga. Mfg. Co. v. Robinson, 72 Fed. 708 (1896); Guaranty Tr. Co. v. Metro. Street Ry. Co., 168 Fed. 937 (1909), and 177 Fed. 925 (1910).

[75] Joline, A. H., Lectures, Graduate School of Business Administration, Harvard University, 83.

[76] For a description of the legal details, involved in carrying out the sale, see Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 139 (1917).

[qq] The strict law is that the acquiring company is in no wise liable for debts or other obligations created by the receiver while managing the corporation.[78] But this principle, based on the old and now antiquated theory that the receiver is merely a temporary trustee, is not observed in practice. Invariably, in the case of a large public utility corporation, and usually, in the case of a small industrial corporation, the receiver has improved and made the corporate property more valuable during his administration of it. That being the case the court, in confirming the restitution of the property to the reorganization committee and the new corporation will require that the latter shall assume the liabilities incurred by the receiver.[79]

[rr] Very seldom indeed is this chance realized. Cleveland and Powell cite the interesting example of the Cape Fear and Yadkin Railroad, which was bid in by the Atlantic Coast Line interests in opposition to the plan of the reorganization committee acting for the Seaboard Air Line Railway.[80]

[ss] That there does not ever occur competitive bidding must not be assumed, for there have been many cases in which two or more interests are opposed to each other in a reorganization and each appears at the sale and bids on the property. This is not by any means uncommon in public

---

[77] *Ibid.*, 202 (Cravath, P. D.).

[78] Godfrey v. Ohio and M. Ry. Co., 116 Ind. 30 (1888); Davis v. Duncan, 19 Fed. 477 (1884); also 67 Fed. 456 (1895); 71 Fed. 636 (1895); and 83 Tex. 286 (1892).

[79] Balt. R. R. Co. v. Buris, 111 Fed. 882 (1901).

[80] 67 Chron., 1355.

As very succinctly stated by Byrne: "The railroad company is an empty shell; its bondholders, creditors and stockholders are going to be the purchasers and to be, with such people as agree with them to put fresh money into the property, the bondholders and stockholders of the new company which is to own the road after foreclosure sale." [81]

Accordingly, in recent practice, many courts, particularly those of New Jersey, to avoid the expense and notoriety connected with a public sale, authorize the receivers to give notice that they propose to sell at private sale the property of the corporation to the reorganization committee in furtherance of their prearranged plan of reorganization. If anyone objects or can guarantee that a larger sum will be obtained at a public offering, the court will authorize it. Ordinarily no one objects, and the plan is carried out at a distinct saving of expense.

If no upset price is fixed, or if it is very high, the bid obtained by the receiver may be less than what the court deems just. A second, or even third, sale may be ordered in the hope of obtaining more.[tt] Sooner or later, the sale is confirmed by the court [uu] and the property comes into the possession of the

---

utility receivership sales, especially if the property has any fundamental strategic value.

[tt] At the first receivers' sale of the assets of the National Salt Company the highest bid was $337,500. Certain minority interests alleged that a conspiracy existed between the receivers and the majority stockholders, and petitioned the court not to confirm the sale. The petition was granted Prior to the sale an independent appraiser had valued the property at $1,149,200 and even $694,200 at forced sale. Yet at the second sale only $193,310 was realized.[82]

[uu] Often the court is requested not to confirm the sale, even after the upset price has been obtained, on merely technical grounds. Usually such a request is made by a recalcitrant minority interest for the purpose of delaying the reorganization. In 1914 the unfortunate Kansas City, Mexico and Orient Railway was sold at receivers' sale for $6,001,000—the court's upset price being $6,000,000. In March, 1915, a bondholder of the road petitioned the United States district court to have the sale set aside on the ground that there had been collusion between the creditors not protected by a mortgage and the depositing bondholders. The petition availed nothing; but the reorganized road was unsuccessful and it passed into receivers' hands again, April 16, 1917.

---

[81] Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 142 (1917).

[82] 77 Chron., 773; 78 Chron., 823, 1552.

new owner—the reorganization committee; and automatically, the administration of the receiver ceases.[vv]

It should be understood very clearly that judges of courts of equity, which supervise the reorganization, use every precaution to avoid what might prove to be a real fraud against certain groups of security holders. An instance has been known in which a plan of reorganization was approved by a Federal Court and put into execution. Subsequently, as a result of additional evidence, the Court discovered that the reorganization plan was, apparently, a fraud perpetrated upon certain groups of security holders by a group of large creditors. The court ordered, so far as it lay in its power, the undoing of the plan of reorganization.

Transfer of the Property to the New Corporation.—The reorganization committee, having acquired the property, immediately turns it over to the new corporation. This the committee has caused to be formed even before the final settlement. The same name is retained in the case of the reorganization of a public utility corporation, except that "railroad" may be changed to "railway" or "company" to "corporation." [ww] But

---

[vv] The only exhaustive study made of the relative lengths of receivership is that of a table compiled by Swain, published in 1898. Using this table, with certain interpolations and adjustments, it may be said that of the 610 railroad receiverships established prior to January 1, 1894, 110, or 18 per cent, lasted less than one year; 147, or 24 per cent, between one and two years; 115, or 19 per cent, between two and three years; 85, or 14 per cent, between three and four years; and the remainder, 153, or 25 per cent of the whole, lasted more than four years. Altogether the average duration was two years, ten months.[83]

The writer is of the opinion, although he has compiled no statistics to prove it, that the length of railroad receivership has increased of late years. Prior to 1890 so many small roads, whose affairs could be easily adjusted, passed into the hands of receivers that the average period was less. Recently, however, owing to railroad consolidation, every receivership represents an intricate problem which requires a comparatively long time to solve. Moreover, the standards of efficiency are much higher than before 1893, and a court is reluctant to loosen its grasp on a railroad property until it is assured that permanently good service can be rendered to the public.

[ww] This is the commonest subterfuge. It was first used, to the knowledge of the writer, for an important railway system, when the Pittsburgh, Fort Wayne and Chicago Railroad was reorganized, February

---

[83] Swain, H. H., "Economic Aspects of Railroad Receiverships," 3 Economic Studies (Am. Econ. Assn. [1898]).

in the case of industrials the name of the new corporation is almost invariably made different from the old one. The reason for this variance in practice between public utility and industrial reorganizations is that the financial embarrassment and subsequent reorganization of a railroad or local electric company does not ordinarily impair its standing with its customers. A large part of the traveling public does not know when a railroad passes in or out of receivership; the public would be inconvenienced were the fact needlessly emphasized or were its established corporate name changed. The failure of an industrial, on the other hand, implies an impaired or a ruined credit. The quicker, therefore, the associations connected with the old company are forgotten, the better it is for the credit of the reorganized company. A new name tends to obscure the memories of the past.

Adjustment of Interests—Non-Assenting Bondholders.—The most difficult problem remaining to the reorganization committee after the sale is that of the final adjustment of conflicting interests. The questions connected with this problem have been affecting all the tentative plans and later stages of the work of the various reorganization committees. They represent the loose ends and possible sources of embarrassment and litigation that invariably cast their shadows about every reorganization of importance. In case all the bonds are of one class, are all deposited with the reorganization committee, and no other creditors exist, the transition from control by the receivers to that of the new corporation occurs without a

---

26, 1862, into the Railway of the same name. It is worked back and forth. First there was the St. Louis and San Francisco Railway. It became the "railroad" through reorganization, in 1896, and again the "railway" in 1916. Infrequently there is a slight transposition in the title itself, as when the Battle Creek and Bay City Railway became the Bay City and Battle Creek Railway after a reorganization in 1889. The Memphis and Little Rock Railroad was sold at foreclosure sale and became the "railway." This was foreclosed a second time and became the Little Rock and Memphis Railroad. It was foreclosed a third time and became the "railway."[84]

---

[84] 30 Am. Law Rev. 161; 20 Fed. 260 (1884).

possibility of friction. But such simplicity is seldom if ever present in any reorganization of considerable size. There are always claims to be adjusted. If the upset price exceeds the face value of one or more issues of underlying bonds, these bonds are not affected; in the vocabulary of finance they are "undisturbed." If the upset price does not equal the face value of a bond issue, some adjustment is necessary with those of the bondholders who have not consented to enter the reorganization and they are invariably paid off in money raised by the reorganization committee as part of their plan. The amount each non-assenting bondholder receives is the proportional part of the sum received by the court from the sale of the actual property securing them, which the face value of his bonds bears to the face value of the total issue. Unless the bonds are secured by very valuable physical property the amount allotted to the non-assenting bondholders is usually very small.[xx]

[xx] The Asphalt Company of America, to illustrate the case among industrials, had outstanding upwards of $30,000,000 of bonds. The company failed and the court fixed an upset price for its property, together with that of an allied company, at $6,000,000. It was sold for $6,006,000, of which $3,120,000 was for the assets behind the $30,000,000 of bonds. From this amount expenses of the sale were subtracted and the adjusted amount divided by the outstanding par value of the certificates. The quotient was $104.68, which is the equity rightfully belonging to each bond. But those of the bondholders who went into the reorganization took the stocks of the new company in liquidation of their claims—as the reorganization plan contemplated. Those who did not were paid off at the rate of $104.68 for each $1,000 par value of bonds.

A somewhat elaborate study can be made of the payments to the non-assenting security holders from the results of the last Pere Marquette Railroad reorganization.[85] In this reorganization every security was either refunded or wiped out, so that if any equity remained to any of the bond issues, and any of the holders of the bonds refused to exchange their securities for the new securities of the reorganized corporation, then their proportional part of the equity would have to be paid to them in money before the mortgage under which the bonds were originally issued could be discharged from the record. There were twelve bond issues that were considered to have a direct lien on physical property, or valuable equity in physical property. Two of them could be discharged on the record without formal foreclosure, as holders of all the bonds issued under them accepted the plan. Of the remaining ten issues, the following represent the settle-

---

[85] Details of this reorganization given at length in Book V, Chapter V, and Chapter VI.

Treatment of "Strikers."—In addition to the payments to the non-assenting bondholders—involving a relatively simple problem—some kind of settlement must also be made with the other creditors who refuse to consent to the plan. These active

---

ment prices with the non-assenting bondholders (for each $1,000 par value and unpaid coupons).[86]

UNDERLYING MAIN LINE BONDS	
Flint & Pere Marquette 1st 6s (Underlying first mortgage on main line)	$853.32
Detroit, Grand Rapids & Western 1st Cons. 4s (Underlying first mortgage on main line)	650.68
Chicago & West Michigan 1st 5s (Underlying first mortgage on main line)	773.57
UNDERLYING BRANCH BONDS	
Indiana Division (Underlying mortgage on important branch)	592.59
Port Huron Division (Underlying mortgage on unimportant branch)	343.87
Chicago & North Michigan (Underlying mortgage on unimportant branch)	314.94
Grand Rapids, Belding & Saginaw (Underlying mortgage on unimportant branch)	230.77
GENERAL MORTGAGE BONDS	
Flint & Pere Marquette 1st Cons. 5s (General mortgage covering principal parts of system)	701.74
Pere Marquette Cons. 4s (First general mortgage for whole system)	460.90
Pere Marquette Ref. 4s (Second general mortgage for whole system, some additional securities pledged)	117.01

As explanation of the above differences in the settlement prices, the relative status of each issue as given in Book V, Chapter VI, page 1060, should be noted, together with the differences in amounts outstanding of the different issues.

The entire subject of the cash or final liquidation value of old bonds issued under foreclosed mortgages has never been adequately discussed. After foreclosure the money representing the proportion of the sale price that should be paid over to the non-assenting bondholders is paid over to the court or courts having supervision of the sale. Smythe cites a case of the foreclosure money of an old telegraph company that was divided up among four different courts.[87] As a result of the foreclosure of many railroad mortgages from the Civil War down through the panic of 1893 a considerable sum of money, in the aggregate, was paid into the various courts. As the old unpresented bonds turned up the holders could get their decree value by merely presenting them to the proper court. But in 1897 Congress passed a law[88] which provided that "it shall be the duty of the Judge or Judges . . . to cause any moneys deposited as aforesaid, which have remained in the registry of the Courts unclaimed for ten years or longer, to be deposited to the credit of the United States."[89] Once the money has passed into the United States Treasury it has been found almost impossible for the holder of an old unpresented bond to get any of the money out.

Smythe, R. M., in his interesting volume on Obsolete American Securities and Corporations II, 12-17, gives a list of some 40 old bonds with their decree value.

---

[86] For further discussion of the refunding of these bonds see Book V, Chapter VI.

[87] Smythe, R. M., Obsolete Securities, II, 9 (1911).

[88] 29 Stats. at Large, 578.

[89] *Ibid.*, Sec. 996.

and latent objectors are called "strikers." They are of two groups. There are the general creditors of the corporation, who have furnished it with labor and material before the failure and who, being relatively few in number, have neither organized nor otherwise intervened in the proceedings. They cannot be neglected, and provision is made that their claims may be paid entirely or partially out of the money subscribed at the time of the reorganization. In case they are not satisfied with the adjustment accorded them, one or more may begin legal proceedings to set aside the foreclosure sale or otherwise hinder the course of the reorganization. The legal standing of these general creditors is by no means clearly defined, but the leading Kansas City Southern case[90] seems to countenance the theory that they may be ignored if the railroad property is worth less than the mortgage debt, but must be included in the reorganization if the property is worth more.[yy]

The following list of 22 are representative. They are all first mortgage bonds on railroads which, in their day, were of considerable importance.

Old Name	Date of Issue	Date of Default	Decree Value (per $1000)
Buffalo, Pittsburgh & Western Rd	1881	1884	$295
Central Iowa Ry	1879	1884	100
Charleston & Savannah Rd (Guaranteed by State of South Carolina)	1857	1877	334
Chicago, Danville & Vincennes—Illinois division	1869	1873	520
Chicago, Danville & Vincennes—Indiana division	1872	1873	43
Chicago, Kansas City & Texas Ry	1887	1891	17
Cincinnati, Columbus & Hocking Valley Rd	1882	1885	25
Cleveland, Delphos & St. Louis Rd	1881	1884	17
Danville, Urbana, Bloomington Rd	1869	1874	168
Dutchess & Columbia Rd	1868	1874	175
East & West Rd. of Alabama	1885	1887	250
Indianapolis, Bloomington & Western Ry	1869	1874	75
Kanawha & Ohio Ry	1886	1889	331
Marietta, Pittsburgh & Cleveland Rd	1874	1875	70
New Jersey & New York Rd	1873	1876	7
New York, Pittsburgh & Chicago Ry	1883	1885	19
New York & Oswego Midland Rd	1869	1874	234
Northern Pacific Rd.—7.3%	1870	1874	7
Ohio Central Rd.—River Division	1882	1883	319
Pittsburgh, Titusville & Buffalo Ry	1876	1885	96
Quincy, Omaha & Kansas City Ry	1887	1890	17
Selma & Gulf Rd (Guaranteed by State of Alabama)	1871	1875	103

[yy] In one notable case a general creditor was able, through a noteworthy decision of the Supreme Court, to annul the work of the reorganization committee merely because an agreement had been reached between the stockholders and the bondholders. An agreement between the stockholders and creditors is invariably entered into as a necessary

[90] Kansas City Southern Ry. Co. v. Guardian Tr. Co., 240 U. S. 166 (1916).

The other class of "strikers" are the security holders who object to the conditions of the plan or the general procedure

---

part—perhaps the most important part—of every reorganization plan which involves the stockholders at all. Yet in this case the court seemed to assume that such an agreement, looking toward the foreclosure of the corporate property by the stockholders and bondholders, no matter under what conditions, was likely to work harm to the excluded general creditor, because he would be, ordinarily, not strong enough to defend himself against a combination of security holders. This was the famous Monon case.[91] The law of the matter has latterly been still further clouded by the now equally famous Northern Pacific or Boyd case, in which the court allowed an unsettled judgment against the old Northern Pacific Railroad to be levied against the new, reorganized Northern Pacific Railway, on the ground that the reorganization plan made no provision for the unsecured creditors, while it permitted the old stockholders to retain an interest in the new railway company by the exchange of old shares for new.[92] "Any device," said the prevailing opinion of the Supreme Court, "whether by private contract or judicial sale under consent decree, whereby the stockholders were preferred before the creditor, was invalid." (504.) Or again "a transfer by stockholders from themselves to themselves cannot defeat the claim of a non-assenting creditor. As against him the sale is void in equity, regardless of the motive with which it was made." [93]

On the other hand, a long series of legal decisions, based on the theory that the general creditors have the privilege of combining together and buying in the property, the same privilege possessed by other creditors, has given legal support to the machinery of reorganization and the final settlement with all creditors on the basis of the arbitrary upset price determined by the court. For instance, in an opinion delivered by the Supreme Court soon after the Monon case, the legality of a sale of property to the reorganization committee was upheld even though the committee had promised to give the old stockholders an interest in the new corporation. The only question was this—Was the property worth more than the mortgage bonds? If it was, then the general creditor had an interest in the equity; if it was not, then the general creditor had none. In the latter case, the mortgage bondholder could, if he chose, surrender some of his interest in the property to the stockholder—or anybody else—without defrauding the general creditor.[94] And in the rehearing of the Monon case, above referred to, this view was maintained by the federal court.[95] And the theory may be regarded as generally accepted, in spite of the apparent anomalies of the Monon and Boyd decisions, that the foreclosing bondholders may do with the property as they like, provided there is no equity remaining to the general creditors from which they were fraudulently debarred.[96] Yet the courts very naturally scrutinize, with great care, a reorganization agreement in which the stockholders are admitted to an interest in the new company, if the old company's debts are not all paid. "Unquestionably the sale of a railroad property under foreclosure proceedings to a committee of reorganization, according to whose connected with the sale of the property, or even the execution of the reorganization agreement.[99] Although not ordinarily powerful enough to reorganize the company in their own way, they are in a position to delay the reorganization by litigation. Sometimes these strikers have a real grievance. In the Philadelphia and Reading reorganization of 1887 the majority of a junior issue of bonds formulated a plan in opposition to that adopted, and agreed among themselves not to comply singly with the provisions of the operative plan. Ultimately the committee felt compelled to pay them the par value of their bonds.[zz] There are speculators in New York who make it their business to "hold up" reorganization committees, and such is the impatience of business men, such the possible delays in litigation, and such the expenses of a prolonged receivership,

---

[91] Louisville Tr. Co. v. Louisville, New Albany & Chic. Ry. Co., 174 U. S. 674 (1898).

[92] Nor. Pac. Rd. Co. v. Boyd, 228 U. S. 482 (1913).

[93] For comprehensive account of the Boyd case, see the illuminating essay by Cravath, P. D., in Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 191 (1917).

[94] Dickerman, Trustee, v. The Northern Tr. Co., 176 U. S. 181 (1900).

[95] 103 Fed. 110 (1900).

[96] Kan. City Sou. Ry. v. Guardian Tr. Co., 240 U. S. 166 (1916).

---

plan the stockholders of the mortgagor company appear to obtain some benefit in the purchasing company, is open to the closest scrutiny." [97]

Any suggestion of fraud, coercion, or injustice will defeat the proceedings. "But where," in the words of the Chicago and Erie decision, "in ordinary course, foreclosure is instituted and carried out for the honest purpose only of enforcing against the property the mortgage obligation, the mere fact that shareholders of the old company may, under a purchasing arrangement, become interested in the securities of the new, will not make the foreclosure per se fraudulent. . . . We see no reason why the purchaser for reorganization may not include any one whom he chooses to take into the organization, and may not contemplate even an exchange of some of the new securities for outstanding shares. To the extent that the property is worth something more than the mortgages, the general creditors are interested in any subsequent distribution. But beyond that, their interest does not extend." [98]

[zz] It should be noted, however, that the committee was anxious to effect the reorganization without foreclosure proceedings, as there were reasons to suppose that the old charter was valuable and should be preserved. Had the committee been willing to foreclose, this "settlement" would have been unnecessary.[100]

In rare instances these strikers have cause for objecting to some basis of settlement. In the reorganization of the Asphalt Company of America, the dissenting bondholders, who had been offered only $105 for each $1,000 bond, had brought to light fraud and misrepresentation by the very interests which reorganized the company. Some of them brought suit to recover a portion of their losses, alleging that the original stockholders had still an unextinguished equity. They were finally paid at the rate of $500 for each $1,000 bond.[101]

---

[97] Joline, A. H., Lectures before the Graduate School of Business Administration, Harvard University, 52.

[98] Wenger v. Chi. & Erie Ry. Co., 114 Fed. 34 (1902).

[99] See Cravath, P. D., in Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 202 ff (1917).

[100] See Book V, Chapter II, notes (h) and (15) and surrounding text.

[101] See note (xx) of this chapter, first paragraph.

that strikers are ordinarily bought off. This practice only aggravates the evil. One man in particular has obtained an unenviable reputation by his numerous exploits. The fact remains that, in spite of questions of ultimate justice, in a field where justice is necessarily tempered by expediency, the effort of a few to exact onerous terms from a majority by using or threatening to use the courts for purposes of delay, can hardly justify itself, whatsoever the plea.[aaa] At all events it is necessary to remember in considering the fundamental justice of the claims of a few, that such has been the depletion of the corporation's property, due to its misfortunes, that no one can

---

[aaa] That the course of a reorganization cannot be obstructed by a small group of objectors has been clearly and succinctly put by the Supreme Court: "To allow a small minority of bondholders, representing a comparatively insignificant amount of the mortgage debt, in the absence of any pretense of fraud or unfairness, to defeat the wishes of such an overwhelming majority of those associated with them in the benefits of their common security, would be to ignore entirely the relation which bondholders, secured by a railroad mortgage, bear to each other."[102]

The late Adrian H. Joline put the matter well when he said: "I confess that I have a most profound contempt for most of these 'bona fide holders' who try to block reorganizations; usually I could name two or three men who are responsible for these blackmailing enterprises. . . . I speak of this, because I want to impress upon you that almost all the outcry against reorganization methods comes from people who are only insincere, selfish speculators, without any genuine interest in the business, hanging on the outskirts of these enterprises in the hope of picking up some fragments."[103] In the Allis-Chalmers reorganization two separate suits were brought to try to impede the foreclosure. Neither availed.

Cravath also has said: "There are a certain number of men who make it a profession to watch reorganizations and other large corporate transactions with a view of instituting litigation at some critical moment in the hope of creating a nuisance value for themselves."[104]

With reference to the obstructionists to the United States Leather Company's reorganization, it was stated that: "A large part, perhaps a majority of these holdings [those of the objectors to the plan] were acquired . . . after the plan of reorganization was announced. Several of those loudest in their protestations of injustice did not acquire their securities until after the Committee had declared the reorganization plan operative."[105]

In one notable instance, that of the reorganization of the National Salt Company, the strikers lost all their stakes as the securities they held became worthless—due to the enforcement of prior liens—while they were engaged in obstructing the reorganization.

---

[102] Shaw v. R. R. Co., 100 U. S. 605 (1879). Quoted by Cleveland and Powell, Railroad Finance, 254 (1912).

[103] Joline, A. H., Lectures before the Graduate School of Business Administration, Harvard University, 86.

[104] Cravath, P. D., in Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 202 (1917).

[105] Dewing, A. S., "The Reorganization of the United States Leather Company," 26 Quart. Jour. Econ. 68 (Nov., 1911).

claim the fulfillment, to the last letter, of his strict legal and equitable rights. To some extent, at least temporary losses must be borne by all concerned. And if there exists any possibility of recovering these losses, the new corporation should be placed on its feet at the earliest possible moment. This is the tacit assumption behind all the procedure of reorganization.

CHAPTER IV[1]

THE REORGANIZATION OF RAILROADS

The practices, conventions, and guiding principles, both legal and financial, governing the reorganization of railroads have been more firmly and definitely established than those controlling the reorganization of any other type of corporation. When, therefore, the government assumed control of the railways of the country, January 1, 1918, both the theory and the detailed working out of the financial rehabilitation of a bankrupt railroad were clearly understood. For the reason, therefore, that railroad reorganization, although extremely intricate, is a relatively finished subject, its historical development and present status will be discussed in considerable detail.

Importance of Railway Reorganization.—Contemporary practice covering the reorganization of both small and large railways has grown up in direct response to the needs of a rapidly building national railway system, not always balanced and not always financially sound in its parts. Moreover, like the railway net itself, the present practices concerning financial reorganization pertain to the period of construction and development, the period of the gradual dawn upon our intelligence of the importance of railway transportation, with the accompanying pangs of our political and social consciousness in adjusting themselves to the rapidly changing economic organization that this importance demanded. It has been essentially an American problem. Our financiers have had no historical or transatlantic precedents to guide them. Notwithstanding this, the development of the theory and practice of railroad reorganization is one of the most original and remarkable achievements of American business genius.

---

[1] Large portions of this chapter originally appeared as parts of periodical articles dealing with the same subject. Dewing, A. S., "The Theory of Railroad Reorganization, 8 Am. Ec. Rev. 774 (Dec., 1918), and "The Purposes Achieved by Railroad Reorganization," 9 Am. Ec. Assn. Rev. (June, 1919).

It was said, twenty-five years ago, that: "The reorganization of American railways is a more noteworthy achievement than the payment of the French indemnity or the refunding of the United States debt. It is noteworthy not merely in the amount of securities involved, but on account of the excellence of the principles which have guided its managers in their action." [2]

Purposes in Reorganization—Reduction of Fixed Charges.—Great emphasis has been laid already on the frequency of over-expansion as a cause of corporate failure. This importance cannot well be overemphasized in discussing railroad failures. In the very earliest days of railroad building this evil showed itself in the extension of railroads into well-developed territory without measuring the cost of construction; during the third quarter of the last century it took the form of extension into territory insufficiently developed, economically, to maintain a railroad. This was true of practically all the railroad failures occasioned by the panics of 1873 and 1884. Subsequently, failure has resulted from the over-building of branch line feeders in the hope of "creating" new traffic. Still more recently railroad systems have been afflicted by the weakness incident to mere size, such as combination of several groups into single vast systems or even (as has been true many times) the embarkation of the railroad in other remotely connected industries. With this over-expansion, the business as a whole earned a steadily declining rate of return on the average unit of investment.[3] It became thinner, through a rather rigid application to the railroad industry of a kind of diminishing return on capital investment. As large amounts of money were required to meet the costs of extensions, over-expansion of a railroad was accompanied, almost inevitably, by an increase in the funded debt, both relatively to the total invested capital and absolutely per mile of railroad. Two tendencies, therefore, operated at the same time, a decrease in earnings and an increase in the interest payments required by the funded debt. Ultimately the interest charges exceeded the earnings and the company failed.[a] But this failure was invariably postponed by the operation of palliatives—first the expenditures for maintenance were cut to the marrow and then a large floating debt was piled up.

---

[2] Mead, E. S., "The Reorganization of Railroads," 17 An. Am. Ac. Pol. Soc. Sci. 242 (1901).

[3] Observe the comparative tables of the New Haven system at different periods of its expansion. Book V, Chapter II, note (k).

In view of these generalizations, surprisingly free from exceptions, if one considers the variety of origin, location, and administration of our railroads, it is possible to observe that every railroad reorganization must penetrate beneath the tangle of proximate causes and either lop off the wasting parasitic growths resulting from over-expansion, or else so remould the financial plan of the railroad that the interest charges shall be less, not greater, than the net earnings. Frequently the reorganization plan has involved a reduction in mileage, especially in those cases of most obvious over-expansion. Although this may be a tacit admission of previous mistakes, the old management invariably ascribes the failure to superficial rather than ultimate causes. Consequently the other alternative, that of recasting the financial plan so that the fixed interest charges shall lie well within the earnings, is the underlying motive of every reorganization. About this, every other feature of the reorganization turns. It is felt by all concerned that failure was due to maladjustments resulting from rapid expansion, and not to the expansion itself. It is assumed, therefore, that if the road is given relief from its over-powering burden of fixed charges, it will recover its poise. Railway pioneers in earlier days, and railway expansionists in the last epoch, have been constitutionally optimists; they prescribed merely a rest for their patient—not surgery. The history of railroad reorganization practice, as we shall see presently, has been the history of a gradual realization that the rest, to be permanently curative, must be accompanied by surgery.

---

[a] Until recently it was almost universally true that the admitted failure of a great railway system did not occur while the net earnings were clearly greater than the interest charges. Yet the failure of the St. Louis and San Francisco Railroad, because of inability to meet the principal of short-time notes, the receivership of the Boston and Maine in February, 1915, because of the same reason, and the receivership of the St. Paul in 1925, because of inability to refund the European loan leads one to question the generality of the above statement, which twenty years ago would have gone unquestioned. In two of the three cases just cited the roads were, apparently, earning the interest on their obligations. Heretofore if a road was able to show interest earned, it ordinarily experienced no difficulty in refunding maturing bonds. The inexcusable practice, now frequently indulged in by railroads, of making permanent improvements from the proceeds of short-time notes has introduced new complexities into the entire situation.

Securing New Money the Second Purpose of Reorganization.—Reduction in fixed charges was, therefore, the primary purpose of every railroad reorganization, but it was not the only purpose. It has been stated already that a railroad on the verge of bankruptcy can postpone the acknowledgment of its failure by two means—a reduction in the expenses necessary to maintain the physical integrity of the road, and an increase in the amount of its floating debt. Both means are adopted. Consequently when failure is finally admitted through the appointment of a receiver, the court finds the road very much out of repair because of insufficient maintenance expenditures, and heavily weighed down by a burden of floating debt. Formerly the rehabilitation of the road and the liquidation of the floating debt were allowed to wait until the period of reorganization; but of recent years courts have permitted receivers to borrow money on their own certificates for these purposes. In any event, the plan of reorganization must provide sufficient money either to rehabilitate the road and pay its prereceivership debts directly, or else to pay the receivers' certificates which had been sold for the purpose of accomplishing these ends during the receivership. Ample new money, then, under any circumstances, is the second essential purpose of every railroad reorganization. And since the credit of the bankrupt property is low, both because of its previous history and the notoriety given to it by the fact of a receivership, outside investors will not buy its securities. The new money must be exacted from the old stockholders who are the only persons sufficiently interested in the property to make sacrifices to help it in its hour of need.

While these two purposes, a reduction in fixed charges and the collection of new money from old security holders, have been the paramount issues in every railroad reorganization, they have not been accomplished by the same means. This is what makes the analysis of railroad reorganization difficult if one stresses the means employed rather than the ends achieved. On the other hand, since the ends to be achieved are so strikingly uniform, we can define a railroad reorganization as a comprehensive change of the financial plan, necessitated by impending or actual failure, such that the fixed charges are reduced and new money is supplied through the sacrifices of security holders.[4]

Periods in History of Railway Reorganizations.—The means for accomplishing these ends have undergone radical changes and it is in the light of the history of the subject that the present theory and practice of railroad reorganization are best understood. Historically, the practices pursued in dealing with a bankrupt railway may be divided arbitrarily, yet with considerable definiteness, into various periods separated from each other by the successive panics. For in actual experience the panic years have served as nodal points in the development of railway finance. Weak railroads have failed in great numbers at those times.[5] Consequently these periods have witnessed the most fundamental and conspicuous changes in reorganization practice.[b]

---

[4] For other definitions of railroad reorganization, see Book V, Chapter I, note (e).

[5] Elaborate statistical tables by J. P. Meany, Poor's Manual of Railroads, lxii and cxiii (1900), giving statistics from 1884 to 1899, and Swain, H. H., "Economic Aspects of Railroad Receiverships," 3 Economic Studies 68 (Am. Ec. Assn. [1898]), giving statistics from 1870 to 1897. The two compilations were by no means identical, but the discrepancies, in terms of the percentage of the country's railroad mileage, were relatively small. Summaries, also, from time to time in the railway journals. 52 Ry. Age Gaz. 045; and 56 Ry. Age Gaz., 4. Crowell (7 Yale Rev. 319) gives certain summaries for the period surrounding the panic of 1873, but does not given sources of his figures. A summary statement is given also in *The Commercial and Financial Chronicle.* 17 Chron. 647; and 22 Chron. 75. Many rough estimates have crept into use, without a clear source. Ripley has made a short summary of railroad failures, drawing his figures largely from the computations of Swain. Ripley, W. Z., Railroads, Finance and Organization, 374 (1915). See particularly the diagram.

① The first period comprises all the attempts to rehabilitate the earlier, distinctly local railroads. It extends down to but does not include the railway failures following the panic of 1857. Railroads were not reorganized in anything like the modern sense; they were merely "set a-going again"; there was no settled and established policy, the failure of each road being treated as an essentially local and individual problem. ② The second period extends from 1860 to the failures succeeding the railroad panic of 1884. It is characterized by several relatively large reorganizations, in fact it may be said to be separated from the earlier period by the fact that two of the largest railroad systems had to be reorganized in more than merely local terms, the Pittsburgh, Fort Wayne and Chicago in 1861, and the old New York and Erie in 1862, both about 470 miles in length.[6] A more closely defined policy was necessary. Railroad reorganization, during this period, ceased to be a matter of merely local interest, and there dawned upon the law and public consciousness the fact that a bankrupt railroad was not to be treated as a private bankrupt estate. The third period ③ extends from 1884 to the panic of 1893. The principles of railroad reorganization as now recognized were being worked out in tentative form during this time. Railroad reorganizations had become matters of public moment. The courts had come to realize fully the social importance of railroad corpora-

---

[b] Some railroad systems have been conspicuously prone to failure. The following systems have failed and been reorganized three times (omitting from the list roads of merely local significance): The Erie system 1861, 1878, 1895; the old New England Railroad, 1871, 1885, 1895; St. Louis and San Francisco 1876, 1895, 1916; Missouri, Kansas and Texas 1876, 1891, 1922; Wabash 1877, 1888, 1915; Reading 1883, 1888, 1896; Toledo, St. Louis and Western 1886, 1899, 1914.

Likewise some managements are conspicuously prolific in failures. Of the various component parts of George Gould's transcontinental railway system all have failed at least once since the blight of Gould management touched them. Those, like the Wabash and Iron Mountain roads, which have been under this management longest have failed the greater number of times.

---

[6] For brief history of former see Book IV, Chapter IV, page 746.

tions, and their receiverships and reorganizations were supervised in accordance with principles of public policy then being developed in an indirect and cumbersome manner. The fourth period extends from 1893 to 1908. It includes the great railway reorganizations succeeding the receiverships due to the panic of 1893 and the following depression. 2 The principles which were vaguely developed in the preceding period were applied to the rehabilitation of some of the greatest railway systems of the country. The fifth period comprises the latest reorganizations, especially those succeeding the railway failures of 1913 and 1914. 5 These financial readjustments were clear cut and remarkably simple, considering the large mileage of the systems involved, and the intricacies of the financial structures. The fact that these recent railroad reorganizations have been consummated so quickly, so easily, and with so little friction, is an indication that the practice of railroad reorganization has passed its formative periods and has become crystallized.

First Period—Before 1857.—In a detailed discussion of the five periods outlined above, little need be said of the first. There were many railroad failures during the thirty years from 1827 to 1857, but they were quite as much the failures of promoters as the failures of their railroads. A railroad promoter underestimated the cost of his project. The subscribed capital was insufficient to finish it, and the promoters were forced to sell more stock or more debenture bonds. In being caused by an extension beyond the available means, these early failures were analogous to those of the later periods, and in the accumulation of a heavy floating debt they resembled their modern counterparts. But there was no recognition on the part of the promoters that they were dealing with a defective financial structure, no conscious intention to remodel the financial plan of the little railroad in accordance with its earnings. Then, too, capital stock predominated in the financial structure,[c] and mortgage bonds having the theoretical right of foreclosure were not issued until the late forties.[d] When the building of the partially completed road came to a standstill for lack of funds, then the promoter, the local merchants and squires, the towns and counties, or other equally restricted groups merely bought more stocks and debenture bonds in order to complete the line. These financial adjustments, even those following the panic of 1837 and the depression extending until 1846, were in no sense reorganizations of financial structures. They were integral parts of the practical working out of railway promotion, episodes in the stupendous and all-absorbing task of substituting steam rail transportation for older and cruder means.

---

[c] As late as 1855, after over 17,000 miles of line had been built, the gross funded debt amounted to slightly less than $300,000,000, whereas the share capital amounted to $425,000,000. On this capitalization the

Second Period—1857 to 1884.—But with the railway failures consequent upon the panic of 1857, a new problem arose. Fully built railroads failed for other reasons than mere unfinished construction. Several of these failures stand out clearly as analogous to contemporary railway failures from the point of view of their size and the economic development of rail transportation.[e] We can therefore look upon the treatment

---

railroads were then operating on a 50 per cent ratio, and the net earnings for the year 1855 amounted to over $40,000,000. This was over 12½ per cent of the funded debt. In New England and the southern states, where were located approximately half the mileage—consisting of small locally owned railroads—the net earnings were over $13,000,000, whereas the funded debt was only $72,000,000—earnings of nearly 20 per cent. From this it is apparent that, once built, the railroads were able to meet their fixed charges, so that the later problem of reorganization, as the problem of reducing fixed charges, was not then paramount.

[d] At the time of the panic of 1857, mortgage bonds were practically absent from the financial plans of New England and southern railroads. They were comparatively rare among the roads of the middle states, and the exception, rather than the rule, among the roads then built in the western states.[7]

[e] The Marietta and Cincinnati Railroad, 180 miles, failed in 1858 and was reorganized in 1860; the St. Louis, Alton and Chicago Railroad, 225 miles, failed in 1859 and reorganized in 1862; the New Albany and Salem Railroad, 292 miles, failed in 1859 and reorganized in 1862; the Great Western Railroad, 170 miles, failed in 1859 and reorganized in 1862; the New York and Erie Railroad, 447 miles, failed in 1859 and reorganized in 1862; the Pittsburgh, Fort Wayne and Chicago Railroad, a consolidation formed in 1856 of three railroads, completed as a line to Chicago in 1858,

---

[7] See Book I, page 113. See Book IV, Chapter IV.

of the larger bankrupt railroads following the panic of 1857, as initiating a new era of railroad reorganization finance.

Characteristic of the mental attitude of the men who guided railway finance at the beginning of this period was the reorganization plan used in two important railway failures of the time, the New York and Erie Railroad, the original stem of the present Erie system, and the Pittsburgh, Fort Wayne and Chicago, the western line of the Pennsylvania system.

The old New York and Erie Railroad had been completed in 1851, but had never been prosperous. It suffered severely during the panic of 1857. Low maintenance charges had increased enormously the mere cost of operation, and these difficulties were aggravated by floods and line washouts; the road had suffered from a strike of its engineers, who turned public opinion against the road by reporting that "only boys" were running the trains. Its terminal in Jersey City was unfinished. Its treasurer, the notorious Daniel Drew, had been running competitive steamship lines and otherwise administering the road's treasury to his personal advantage. On the financial side the picture was even more disheartening. Unpaid judgments for over $700,000 were outstanding against the company; it had accumulated a floating and unsecured debt of over $8,000,000, and an old mortgage of $4,000,000 had matured and remained unpaid. The road had defaulted on the interest on all its other bonds—even the interest on the old underlying first mortgage bonds. And capping all these difficulties, the road was earning actually less than its mere operating expenses. The president of the road made a hurried trip to England in the hope of inducing the British security holders to come to the rescue, but the effort was futile. Finally, in the last extremity, receivers were appointed in August, 1859.

At the time of its failure, the affairs of no great railroad

---

failed in 1860 and reorganized in 1862. These last two roads were of importance.[8]

[8] For brief history of the Fort Wayne road see Book IV, Chapter IV, page 746. The Erie reorganization is discussed presently.

system reorganized within recent years were in such despicable condition as those of the old New York and Erie in 1859. It had a notorious celebrity—in financial districts and in the public press. One would presume, therefore, that the reorganization plan adopted to remedy these disheartening conditions would be as drastic and comprehensive as the generally acknowledged reorganization policy of the period would countenance. Yet there was nothing either drastic or comprehensive about the reorganization finally consummated in 1862. The mortgage bondholders were required to make no sacrifices whatever, the small assessment of only 2½ per cent levied on the stockholders being used to meet their overdue coupons. The large floating debt was funded into preferred stock. On the whole, the position of the common stockholders was distinctly stronger, in so far as the menace of a floating debt nearly as large as the common stock had been permanently funded into a type of security having merely a contingent lien on earnings. Prior to the reorganization the floating unsecured debt amounted to $8,500,000 and the common stock to $11,000,000. Although probably the most disheartening failure, all things considered, of a prominent railroad, its reorganization is almost unique in the small amount of sacrifice demanded from any of the security holders.

In 1875 the Erie Railway failed again, after the panic of 1873. Again it was one of the most severe and far-reaching failures of the time. And again the individual conditions surrounding the failure were almost as disheartening as those of 1859. Nevertheless the reorganization of 1878 was carried out by merely funding into 7 per cent bonds the overdue coupons on certain junior issues of bonds[f] and by levying a small assessment on the stocks.[g] The significant change from the preceding reorganization was the funding of alternate coupons on certain junior bonds, thus to a very limited extent reducing temporarily fixed charges, whereas in the earlier reorganization no effort was made to effect even a temporary reduction in fixed charges. In other words, although both failures were severe, neither reorganization demanded any sacrifice from the security holders at all consonant with the severity of the failure, and the only significant difference between the two reorganizations was that in the one following the panic of 1857 neither a temporary nor permanent reduction in fixed charges was accomplished, whereas in that following the panic of 1873 there was achieved a small temporary, but no permanent lessening of the fixed charges.[9] One astute student of reorganization procedure remarked that "the railroads which failed in the early seventies were not really reorganized—they were simply regalvanized." [10]

---

[f] The funding of coupons into bonds of the same general tenor was a frequently used method of securing temporary relief from a pressing burden of fixed charges, during the reorganizations of the middle and late seventies and early eighties. It was, for illustration, a prominent feature of the reorganization of the St. Louis, Iron Mountain and Southern in 1878.

Third Period—1884-1893.—The railroad panic of 1884 initiated numerous railway failures. The reorganizations following these failures comprise the third period of our historical review. There were at the time many half-finished railroads, the failure of which was like that of the early railways of the eastern Atlantic states following the panic of 1857;[h] there

---

[g] The assessments were 4 per cent on the common and 2 per cent on the preferred stocks. But the shareholders could pay, if they wished, half again as much (6 per cent on the common and 3 per cent on the preferred) and receive income bonds for the assessment. Most of the shareholders elected to pay the smaller assessments and receive no securities.

[h] Types of such failures were the first failure of the Atchison, Topeka and Santa Fé Railway, consequent upon its growth from 2,800 miles in 1884 with net profits of over $7,000,000 to over 7,000 miles in 1888 with net earnings of less than $7,000,000.[11] Of lesser moment, yet of the same character in being failures of unfinished, poorly constructed, half-developed

---

[9] Details covering the failure and reorganization of the New York and Erie are best obtained from Mott, E. H., The Story of Erie, 125 *et seq.* (1901). Daggett, S., Railroad Reorganization, 35 (1908), gives a short epitome, but the account is inadequate to the historical importance of the episode. The details of the second failure and reorganization may be obtained from Mott, E. H., *ibid.*, and the fuller account in Daggett, S., *ibid.*, 37-50. Also 21 Chron. 612 (1875); 28 Chron. 67 (1879); 29 Chron. 358 (1879). Also 2 Hepburn Committee Report 252.

[10] Crowell, J. F., "Railway Receiverships in the United States," 7 Yale Rev. 326 (1898).

[11] See Book V, Chapter II, note (f), for figures.

were other competitive railroads which were built, in fully developed territory, for the single and often avowed purpose of being bought out by stronger rivals, but which were too weak even to initiate the struggle, much less carry it to a successful issue.[i] But fully characteristic of the reorganization policy of the period, as it showed itself in the reorganization of a fully developed and completely articulated railway, was that of the Wabash, St. Louis and Pacific Railway,[j] the antecedent of the present Wabash Railroad. The road failed May, 1884; it was the first of our great American railway systems to throw itself into the hands of receivers.[12] The fundamental reason for this failure was over-extension of branch lines. This was very

---

railway systems, located in different parts of the country, were the Denver and Rio Grande Railroad, failed in 1884, reorganized in 1885; the Florida Railway and Navigation Company, failed in 1885, reorganized in 1888; the Houston and Texas Central Railway, and the Houston East and West Texas, both failures in 1885 and reorganized, the former in 1888 and the latter in 1892 (both now important parts of the Southern Pacific's Texas lines).

[i] Two of these buccaneering enterprises did much to bring about and make serious the railroad panic of 1884. The old New York, West Shore and Buffalo was built along the west bank of the Hudson River for no other purpose than to create for itself a "nuisance value" to the Hudson River Railroad.. It failed in 1884, with only 475 miles of line but with the enormous capitalization of $40,000,000 of stock and $70,000,000 of bonds. It was reorganized the following year at great sacrifice to the security holders—very unusual for the period. (The first mortgage bondholders were forced to accept 50 per cent in new bonds.) The New York, Chicago and St. Louis Railway was built in the early eighties to parallel the Lake Shore and Michigan Southern Railway. It failed in 1885 and was reorganized in 1887.

[j] The history of this road is illuminating and typical of the growth of our American railway systems. It was formed in 1879 as the consolidation of the old Wabash Railway and the St. Louis, Kansas City and Northern Railway.

The former road, the original Wabash Railway, was reorganized in 1877 out of the Toledo, Wabash and Western Railway. This latter represented a consolidation, in 1865, of the Great Western Railroad, the Toledo and Wabash Railroad, the Quincy and Toledo, and the Illinois and Southern Iowa Railways. The Great Western was a descendant, after failures and reorganizations, of the original Sangamon and Morgan Railroad which was begun by the state of Illinois in 1838.

The other unit of the Wabash, St. Louis and Pacific, the St. Louis, Kansas City and Northern Railway, was a reorganization of the North Missouri Railroad, an enterprise chartered in 1857 to build a line from St. Louis through the northern sections of Missouri to Coatsville on the Iowa line.

---

[12] The significance of this classic case was discussed in some detail in the preceding chapter dealing with reorganization procedure

clearly stated by the editors of *The Commercial and Financial Chronicle* at the time. "The Wabash, St. Louis and Pacific extended its lines very widely in the years 1879 to 1882 by the acquisition of branch and connecting roads, and thereby assumed heavy liabilities. Although the earnings increased largely, the annual liabilities were still far in excess of the net earnings."[13] The same opinion was expressed by Swain when he said: "The Wabash, St. Louis and Pacific Railway was one of the most striking illustrations" of a railroad where "the weight of numerous unprofitable branches and extensions has been too much for it."[14] It embraced over 2,000 miles of line, about two-thirds east and a third west of the Mississippi.[k] For a while, the system was operated in two equal parts and the parts emerged from receivership separately,[l] but the reorganization plan, with its successive modifications, contemplated a single unified system. This was necessary in order that the road might weld into a co-ordinated system the heterogeneous mass of independent main lines and foolishly and improvidently constructed branch lines out of which it had been created. There were outstanding at the time fourteen separate issues of divisional first mortgage bonds, bearing interest averaging nearly 7 per cent,[15] and several issues of second, third, and general mortgage bonds bearing 7 per cent interest. Below these senior bonds there were $16,000,000 of general 6 per cent bonds and some $6,000,000 of 6 per cent collateral trust

---

[k] When the Wabash, St. Louis and Pacific Railway failed in 1884 it was then operated by the St. Louis, Iron Mountain and Southern, and the entire system exceeded 3,600 miles. The text above is pertinent to the reorganization of the Wabash, St. Louis and Pacific Railway proper, as the Iron Mountain lease was broken about a month after the receivership, and the leasehold rights on several of the least important western branches were abrogated.

[l] The Wabash Western Railway, including the 641 miles west of the Mississippi River and 362 miles east—1,003 miles in all—emerged from the receivership in March, 1887. The Wabash Railway, including 948 miles east, extending from Toledo to East St. Louis and branches, emerged from receivership in May, 1889.

---

[13] 46 Chron. Inv. Sup. 2, 130 (March, 1888).

[14] Swain, H. H., "Economic Aspects of Railroad Receiverships," 3 Economic Studies 84 (Am. Ec. Assn. [Apr., 1898]).

[15] Eight issues, 7 per cent; 4 issues, 6 per cent; and 2 issues, 5 per cent.

bonds. In addition to all this debt there were $27,000,000 of common stock and $23,000,000 preferred stock.

The first plan of reorganization[16] contained two radical provisions. It required the exchange of the $22,000,000 of the general and the collateral trust bonds, both bearing 6 per cent fixed interest, into 6 per cent debenture bonds, bearing 6 per cent interest, payable if earned (income bonds). In other words, the road was to be given a temporary "rest." A fixed charge of $1,300,000 was to be changed into a contingent charge. The second radical provision was that the old preferred stockholders were to be assessed 8 per cent a share, the old common stockholders 6 per cent a share (the new income bonds to be given for their assessment), and the old general and collateral trust bonds 2 per cent. In other words, besides having their interest made contingent on earnings, the old junior bondholders were actually assessed. But the reorganization managers were not satisfied with merely a temporary reduction in fixed charges. In a supplementary plan, under the thoroughly justifiable excuse of bringing into a close union and coherent structure all of the Wabash lines, the reorganization managers forced the holders of upwards of nine of the old underlying first mortgage bonds, bearing an average of nearly 7 per cent interest,[m] to accept new 5 per cent bonds issued under a blanket first mortgage. And they forced the holders of the underlying second mortgage bonds, mostly bearing 7 per cent interest, to accept new 5 per cent bonds issued under a blanket second mortgage.[n] In brief, the great Wabash reorganization, a landmark in the history of reorganization practice, not only collected an assessment on stockholders and junior bondholders and made contingent on earnings the interest on two large issues of junior bonds, but it also solidified into two senior

---

[m] Two of these issues, the Toledo and Illinois First 7s and the Lake Erie, Wabash and St. Louis First 7s had been outstanding since 1853.

[n] These second mortgage 5 per cent bonds were further weakened by the fact that foreclosure suit could not be brought until eighteen months after default of interest.

---

[16] Sept. 1, 1885. Digest, 41 Chron. 30 (1885).

blanket mortgages, bearing a low interest rate, practically all the underlying high interest-bearing bonds. Of course, in actual percentages of total charges, the reduction of fixed interest was small and the treatment of the junior bondholders who were given income bonds with a mortgage lien was not in any sense drastic. The point of importance is that in this historically important reorganization of a great railway system of the late eighties, there was some permanent as well as temporary reduction in fixed charges and a distinct, although slight sacrifice was required of every one of the security holders.[o]

---

[o] It should not be understood that even this leniency toward security holders, shown in the reorganization of the partly articulated Wabash system, was exercised in the reorganization of the partly finished or "nuisance value" railroads mentioned in notes (h) and (i). On the contrary, the belief in a very wholesome scaling of fixed charges was gradually coming into the consciousness of railroad promoters, though it had not yet reached the understanding of operators of completed systems. In the reorganization of the incompleted Northern Pacific, following the panic of 1873, all the bonds were refunded in a preferred stock. The First Mortgage Bonds in the New York, West Shore and Buffalo reorganization were scaled down 50 per cent. Many instances existed, then as now, in which the bondholders of unfinished or recently promoted railroads were asked to endure drastic sacrifices. This in no wise affects the strength of the generalization that the early reorganization policy for completed going railroads involved little sacrifice on the part of the security holders.

This principle is further illustrated by the two Reading reorganizations of 1882 and 1887. These bring out, with even greater clearness, the leniency of early railroad reorganizations, when one considers that in the fifteen years between 1880 and 1895 the Reading was in the hands of receivers for an aggregate of over ten years.[17] In the reorganization of 1882 the only relief afforded the company was the sale of some senior bonds to fund upwards of $12,000,000 of floating debt. No sacrifices of any kind were demanded of stockholders or bondholders, although the year before the receivership the fixed charges on the debt amounted to $7,500,000 and the net earnings—with inadequate maintenance—to only $5,500,000. In fact the fixed charges were absolutely increased by the reorganization from $7,700,000 to $11,500,000—a net increase of 50 per cent.[18] In the reorganization of 1887, after a receivership of nearly three years, a receivership brought on by fixed charges of over $16,500,000 with net earnings of less than $13,000,000, the remedy adopted was the payment of the floating debt by an issue of new general mortgage bonds.

Nor was there any exception to the rule in the Atchison reorganization of 1888. The interest rates on some branch line bonds covering lines of the system which had failed even to meet operating expenses, were funded into 5 per cent income bonds. The interest on these income bonds was paid and the bonds thereunder soon refunded into second mortgage bonds secured by the entire system and with a definite claim to interest. Con-

---

[17] For details of the Reading reorganizations, see the full account in Daggett, S., Railroad Reorganization, Chaps. III and IV (1908).

[18] Daggett, S., Railroad Reorganization, 357 (1908).

Fourth Period—1893 and Following Years.—The panic of 1893 was prolific in railway failures. And the failures were chiefly, unlike those arising out of the preceding panics, of completed, well-established, and highly organized railway systems. One of the earliest and most conspicuous of these was the failure in the early part of 1894 of the Atchison, Topeka and Santa Fé Railway. The system embraced over 7,000 miles of line and constituted then, as now, the only single railroad reaching from Chicago to the Pacific Coast. It had been reorganized in 1889, after a period of abnormal and factitious growth, by the refunding of a multitude of small issues of bonds into two blanket issues carrying low fixed charges.[20] But in the intervening years the road had increased its mileage by the acquisition of one railroad after another, without regard to financial expediency or even future solvency. Later, when an independent expert audited the books, he found that there had been an average deficit of over $1,250,000 for the years from 1891 to 1894, notwithstanding the fact that the company had falsified its books so as to represent an ample annual surplus for each year.

The stocks and bonds of the Atchison were largely held in England. Of the bonds there were outstanding $150,000,000 first mortgage 4 per cent bonds and $84,000,000 second mortgage bonds, then carrying 3 per cent interest. The interest charges had not been earned since 1891, according to the independent auditor, and in addition the road had current debts of $11,000,000. But the English bondholders, solicitous of their interests, proposed in an immediate plan of reorganization merely to refund the second mortgage bonds, then carrying 3 per cent fixed interest, into income bonds carrying 5 per cent. The second mortgage bondholders were not to be assessed, and the 5 per cent income bonds offered them were, considering the

---

sidering, therefore, the increase of security given, no real sacrifice was required of any bondholder.[19]

---

[19] For seriousness of the failure, see Book V, Chapter II, note (f).

[20] See concluding paragraph of preceding note.

future as well as the present, quite as valuable as the bonds they surrendered. The stockholders were to be assessed and the proceeds used to pay part of the floating debt and the overdue unpaid coupons on the old bonds. As one writer observes: "The notable part of the scheme was the anxious care of the bondholders to protect themselves."[21] Subsequent realization of the seriousness of the failure made the American financial interests realize that the English bondholders' plan was an ineffectual and selfish palliative.

A new, broad reorganization policy was dawning upon the consciousness of both bankers and investors, one which required that a reorganization to be well done must be thoroughly done. And when the final Atchison plan of reorganization was adopted in 1895, it expressed fully an understanding of this new financial wisdom. The old 4 per cent first mortgage bondholders, having a prior lien to the entire system, were forced to accept 75 per cent of the principal in new 4 per cent bonds—a cutting of both principal and interest by 25 per cent. To make up for the loss, they were given 40 per cent in new 4 per cent income bonds. The second mortgage bondholders were required to surrender their bonds for preferred stock, and to pay an assessment of 4 per cent. The statement of the reorganization committee, pointing out the necessity of the drastic sacrifices required of the second mortgage bondholders, has been frequently quoted: "It was not thought that a greater assessment than $10 could be raised from the stock, and the remainder had to come from the junior bonds." In other words, they were forced to accept the position of losing partners, not of creditors,[22] in the enterprise. This change from the English bondholders' mild and superficial reorganization plan to that finally adopted by the American financiers, was, in a very true sense, a crucial point in the evolution of our reorganization policy. The former was a makeshift; the latter was a thorough, comprehensive financial readjustment. And the fact that the former was rejected and the latter accepted indicated that a mere palliative with a minimum of sacrifices and a temporary decrease in fixed charges was no longer regarded as a sufficient readjustment to render sound and stable a bankrupt and impoverished railroad system.

---

[21] Daggett, S., Railroad Reorganization, 207 (1908).

[22] Details of the two Atchison reorganization plans are given in Daggett S., Railroad Reorganizations, 206, 211 (1908), in which references will be found to the original sources.

Change of Attitude toward Reorganization.—The reorganization of the Atchison Railway was among the first of the great railroad reorganizations following the panic of 1893. It was prophetic of the new spirit. Already in the Wabash reorganization, outlined above, the new order began to show itself. But in the contrast between the English bondholders' plan and that finally adopted for the Atchison, the contrast between the old and the new order stands clearly defined. It marks the completion of the transition from the third to the fourth period of reorganization policy, outlined in the earlier paragraphs of this chapter. And this means more than an unimportant historical distinction. For the line of demarcation between the great railway reorganizations prior to that of the Atchison in 1895 and those contemporary with it and following it, is more distinct than that between any other of the historical periods.

From the first Erie reorganization down to the English bondholders' Atchison plan, a period of thirty years, there had been a growing realization that a railroad reorganization, to be permanently successful, must be drastic and comprehensive. But this realization was of slow growth.[p] Lawyers stuck to

---

[p] The view here taken, that bondholders were treated more leniently in the earlier reorganizations, is different from the judgment of Mead, who has contended that the position of the bondholder has been stronger since 1893 than before.[23] The view expressed here seems to be in agreement with Crowell.[24] It is also implied by the exhaustive statistics of Meany,[25] and specifically given by Daggett's statistics and suggested by his statements of comparison.[26]

---

[23] 17 An. Am. Ac. Pol. Soc. Sci. 232.
[24] 7 Yale Rev. 319.
[25] Poor's Manual of Railroads, lxxxix, cvi (1900).
[26] Daggett, S., Railroad Reorganization, 358, 363 (1908).

the legal phraseology of bonds and mortgages, insisting that the contractual rights of bondholders must be protected at all hazards, and investors were intolerant and obstructive if forced to submit to anything more than the most superficial and temporary sacrifices.

There were several significant motives to explain the comparative leniency with which bondholders were treated in the reorganizations prior to 1895. All men assumed that the railroad industry was inherently profitable, and would grow as the resources of the United States were developed. And this being the case, increasing prosperity might be expected to absorb any ordinary burden of fixed charges which might be placed on a railroad. In many cases it was presumed by overconfident reorganization managers that even an extraordinary burden could be carried, provided drastic competition could be, for the moment, alleviated. Again, the courts showed every inclination to protect the bondholder, should he object to any sacrifice of principal or interest that a stockholder management might wish to impose upon him. By resorting to a variety of legal steps, the bondholders could impede, perhaps frustrate, the reorganization. Further, by no means least important, there was the fact that large proportions of the bonds of our American railroads were held in England and on the Continent.[q] These foreign bondholders acted as a unit against any effort to emasculate their position. They could not be prevailed upon to relinquish any of their literal rights so long as any equity remained to the American stockholders; and the American stockholders refused to relinquish their shadow of

---

The strength of the position taken here will become more apparent from an examination of the statistics given in the next two chapters.

[q] After a rapid survey of the railroad receiverships consequent on the panic of 1873, Crowell states: "One hundred and fifty millions, or 15 per cent of the American railway bonds in default at the end of this, the first great crisis in this class of securities, were held in foreign countries, largely in Germany, Holland, and England. This was about 40 per cent of the entire amount of foreign holdings of American railway securities."[27]

---

[27] Crowell, J. F., "Railway Receiverships in the United States," 7 Yale Rev. 324 (1898).

an equity because of their inherent confidence in the ultimate prosperity of the railroad industry.[r]

Need of Spirit of Co-operation Recognized.—These few historical cases and the generalizations one may draw from them refer to a period of railway finance long since past. Beginning with the crisis of 1893 the motives outlined above ceased to dominate reorganization managers. A new era of financial history dawned, and with it a new policy toward railroad reorganization. No longer were any scruples shown in the treatment of the bondholder. Forced by the obvious plight in which the railroads of the country found themselves in the depression from 1893 to 1897, people generally recognized that only through the most drastic cutting of fixed charges, accompanied by large investments of new money, could the bankrupt and impoverished roads be rehabilitated. No longer did the reorganization plans show the dictation of English bondholders who, by delaying their consent, could impede the reorganization; no longer did the courts aid the "striking" bondholders. And, finally—perhaps most prophetic of the new period—men no longer assumed that the railroads would become prosperous, ultimately, no matter what burdens they were compelled to carry.

Many reasons explain the change of opinion. At every period of financial history, those reorganizations consummated at the time of a financial panic or business depression are more drastic than those consummated during a period of business prosperity. Then, too, the influence of the late J. P. Morgan was dominant and worked in every instance for the distribution of sacrifices and the casting of the financial pattern according to actual earnings. But most of all there was a common con-

---

[r] Crowell gives what might be considered another reason, namely, that "many of the mortgages could not be foreclosed at all, because the state had endorsed the bonds and had the right of foreclosure, which it did not exercise because it did not want the road or did not want to sacrifice the property by a forced sale in the midst of financial depression. The state could not be sued on its endorsement."[28]

---

[28] *Ibid.*, 326.

Handed [illegible] 11/14
Hosting, de.

sciousness that the era of promotion was past and that the restitution of confidence in the industry required that the railroads be given a definite economic stability and their bonds made a secure investment. To accomplish this, sacrifices were required of all who took part in the period of promotion and extension, and permanent protection for those who, in the hour of need, showed their confidence by contributing new money. In attaining these ends the old bondholders were called upon to help. As a result of the drastic reorganizations of this period, the railroads of the country emerged with new life, rehabilitated physically by the investment of new capital, and freed from overburdening debt.

Principles of reorganization practice were thoroughly established by the thoroughgoing and drastic reorganizations of the large railway systems during the middle nineties, and these principles were applied with uniform precision to the recent cases. Omitting, for the purpose of this introductory survey, confusing exceptions and unimportant details, one may summarize contemporary reorganization practice in the following general terms.[29]

Contemporary Theory and Practice of Railway Reorganization.—So far as the formal procedure is concerned, a reorganization brings about an adjustment—represented usually by a compromise—between the strict construction of the legal obligations of the various security owners and creditors of the road, and the necessity, from the public point of view, that the railroad maintain its service as a solvent, responsible, and progressive corporation. It is the balance between private and public interests. While pretending to hold to the strict construction of the legal contract, the courts have been inclined to allow all interests, no matter what their equitable rights might be, to participate in the reorganization provided an improved railroad service can be promised to the public. Neither state nor federal laws have much to do with determining the character of railroad reorganization. The parties most concerned are encouraged to work out any plan that is expedient and approximately just, provided it is socially and economically sound. And the resulting compromise between the strict rights of the bondholders, the blasted hopes of the stockholders and the welfare of the public, is based on expediency tempered by justice, rather than justice tempered by expediency. It is carried through under the sanction of a system of law which has grown up as a response to the peculiar economic conditions of a new country, a system of law which has sought to preserve the forms of a legal practice existing long before railroads were conceived, while modifying its substance to meet the actual conditions of railroad success and failure in this country.

---

[29] An excellent, readable account of the successive steps in a modern railroad reorganization is given by Lyon, W. H., Corporation Finance, Chap. VIII (1916). His account is neither as general as that of the next few paragraphs, nor as long as that of the next two chapters.

As far as the specific results are concerned, the present practice rests, as has been previously suggested, on the elemental principle that two primary ends must be achieved in every railroad reorganization. The more immediate, but less fundamental end, is the collection of a fund of money, obtained primarily by a levy on the stockholders. This is to be used to pay the debts at the time of the receivership, the improvements of the road during receivership, and the expenses of reorganization; and finally to provide the means that shall keep the reorganized road from incurring new floating debt during the period of its rehabilitation. The second end is the reduction in fixed charges. The letter of the railroad mortgage bond has come to be nothing more than mere legal verbiage, but if the property covered by the mortgage has earned its charges, the mortgage is allowed to remain and the bondholders are not asked to make sacrifices. If, on the other hand, the property behind the mortgage has failed to earn its charges, the bondholders are forced to accept a lessening, perhaps a total extinction, of their rights to demand a fixed income. They may object, but they are powerless to resist, except by acquiring the actual property itself at foreclosure sale; and the failure of their property to earn its charges prior to the receivership gives little promise that its earnings would be better after the bondholders themselves have exercised the letter of their legal rights and acquired by themselves alone the actual operation of the road. We have here another illustration of the fundamental truth that the economic value of physical property is no greater than its inherent earning capacity.

Course Generally Followed Today.—The syndicate of bankers that is called into existence to finance the reorganization will probably dictate the plan.[8] Normally the plan will provide for the formation of a new corporation which shall take over the assets of the old one, subject to such underlying liens as are not affected by the reorganization. The syndicate is then in a position to issue entirely new securities which are superior to every liability of the old corporation except the undisturbed prior lien bonds. Such new securities are ordinarily of three classes. They may be designated as the fixed charge, the contingent charge, and the common stock securities. The first class will consist of a large issue of general mortgage bonds, having a small interest rate, the aggregate of which is less than the net earnings of the railroad during the receivership. The second class will be income bonds or non-cumulative preferred stock—preferably the latter—the interest or dividend payments of which, together with the interest on the other bonds, will bring the capital charges to an amount somewhat less than the maximum income prior to the receivership. The third class will be the common stock, large in amount, but having no fixed or contingent charge. It is distributed freely in order to placate the old security holders.

The plan will propose as well to secure new money in order to pay the floating debt, the receivers' certificates, and to improve the physical property of the road. This new money will come from two independent sources. A syndicate will purchase of the new corporation a block of the new general mortgage bonds. The holders of the stock and possibly the junior bonds of the old corporation will be taxed or assessed as much as they can be induced to pay for the privilege of acquiring a subordinate interest in the new corporation. This participation is usually represented by a combination of contingent charge securities and common stock. To assure the new road the proceeds of these assessments, the syndicate which has undertaken to buy a part of the issue of general mortgage bonds will probably agree to pay the assessment demanded of any delinquent stockholder and assume his rights in the new corporation.

---

[8] The reader must remember that the next few paragraphs express merely general principles to which all railroad reorganizations more or less conform. The more recent the reorganization, the more nearly it conforms to this type. Nevertheless, exceptions to every one of the following principles abound. Details, variations, and exceptions, when significant, are discussed in the two succeeding chapters.

The same idea can be restated in the uses to which the three new classes of securities are put. The bonds involving fixed charges are given in exchange for a part or all of those of the old bonds upon which it can justly be claimed that the interest was earned and will be earned under all circumstances. The rest are sold to the syndicate for money. The securities bearing contingent charges, together with the common stock, are given, in varying combinations, to the holders of those old bonds, the interest on which had not been fully earned, and to the stockholders, on condition of the payment of a certain tax or assessment. As a result of these transformations, the almost invariable consequence of every railroad reorganization since 1895 has been that the road emerged from its troubles with a lower fixed charge against income but with a higher total capitalization. The bonds and the fixed interest charges are reduced; but the par value of the preferred and common stocks is increased, by reason of the necessity of distributing these securities freely, in return for the sacrifices made by the old junior bondholders and stockholders. We are thus presented with the striking anomaly that the bankruptcy of a railroad corporation leads to a direct increase of its total issued securities. We are also presented with the even more striking fact that in the presence of financial failure and its consequences the public utility character of a railway corporation is brought most clearly into evidence.[t]

Railway Reorganizations Classified.—This brief outline of the form of contemporary railroad reorganization is altogether too general and superficial to be of significance when applied to concrete cases. All railroads differ among themselves. The specific causes of railway failure are never the same in two instances, so that the specific remedies to be applied will necessarily vary according to the individual case. Consequently, in order to discuss reorganization plans in any except the most general terms, and to treat of the subject with clearness and definiteness of outline, it is necessary to arrange railroad reorganizations themselves according to some kind of system of classification, else any detailed discussion of the subject degenerates into a mere jargon of unordered cases. But a classification of railway reorganizations is difficult, owing to

---

[t] The long history of judicial opinion, in which the doctrine of the priority of public over private rights—provided federal constitutional rights are not jeopardized—has been traced many times. It was consciously acknowledged in 1876[30] and culminated in the assumption of federal control of the railroads of January 1, 1918.[31]

One or two findings in connection with receivership proceedings are of moment in this connection. As long ago as 1874 the New Jersey Southern Railroad and Long Branch and Sea Shore Railroad were put in the hands of receivers because no daily trains were run for ten consecutive days. These cases present an early discussion of the rights of the public under state law. Among other things the chancellor said: "The Legislature may be presumed to have acted on the assumption that the grant of franchises to a railroad company is primarily to provide a highway for the public, and that there is an implied contract on the part of the company to build, equip and operate their road for the use of the public."[32] And eighteen years later, in 1892, a receiver was appointed for the Chicago and Southwestern Railway by an Indiana court, merely because certain shippers alleged that the road was unable to care for their business.[33] About this same time Judge Hanford succinctly stated the present attitude of the courts toward railroads, in connection with the Northern Pacific litigation. "A railroad is a public highroad, designed for public use. A corporation owning it enjoys a public franchise which makes it in a measure a public servant, obligated to serve the public by keeping the road in operation."[34]

---

[30] Munn v. Ill., 94 U. S. 113.

[31] For an exhaustive account, see Ripley, W. Z., Railroads, Rates and Regulation, Chaps. XII to XX (1912).

[32] In re Long Branch & Sea Shore R. R. Co., 9 C. E. Green 398, 404.

[33] 32 Chi. Ry. Rev., 479.

[34] Farmers Loan & Tr. Co. v. Nor. Pac. R. R. Co., 71 Fed. 246 (1896).

the extreme difficulty of determining a proper system or scheme.

From all points of view, the most valuable way of classifying railroad reorganizations themselves (and the practical expedients used in accomplishing the two primary ends), is in terms of the causes and extent of the embarrassment which occasioned the necessity of reorganization. In other words, reorganizations are best classified according to their causes. Financial embarrassment, actual or threatened, is the cause of the crisis of which reorganization is the remedy. A reorganization, therefore, can be successfully consummated only as it removes the cause, so that any attempt at classification must recognize that the form as well as the concrete details of railway reorganizations will vary according to the nature, extent, and seriousness of the failures which caused them.

Three Types of Failure Necessitating Reorganization.—There are, in general, three types of railway failures—two pertaining to large railway systems, the third confined to small independent railroads.

The first type, which we will hereafter call "primary failures" and the resulting reorganizations "primary reorganizations," or Class I, is the result of a crisis which is serious, thoroughgoing, and usually long protracted. This class embraces the real financial and economic failures of our large railways. In the actual experience of a particular case, one may assume that the crisis has been coming on for many years. Various palliatives have been applied. Various expedients have been tried; not infrequently some expedient has even approached the scope of a reorganization. Every known device of economy of operation has been tested. Usually the railway system has been overextended into new or competing territory in the hope of increasing the stability of net earnings through increased gross revenue. Ordinarily, every available prop in the way of association and combination has been tried to increase the available net earnings; every known financial device of lease and guaranty, of collateral trust bond, debenture, and short-term note, has probably been resorted to in order to secure money and bolster up a declining credit. All these expedients are at most mere palliatives. They avail nothing. The net earnings continue to decline, the bond interest and rentals increase more rapidly than the earnings. The margin available to the stockholders grows narrower and narrower, and the credit poorer and poorer. Such conditions are fundamental. Yet as the current liabilities of a railroad are always relatively small and its floating debt is, or ought to be, insignificant compared with its total capitalization, the conditions described may continue for some time before a specific crisis brings about an outward acknowledgment of failure. The important consideration, however, is that the railway system as a whole is a failure economically. Its earning capacity cannot justify its capitalization.

The second class, called hereafter "secondary failures" and the reorganizations "secondary reorganizations," or Class II, embraces those railroad failures which cannot be called fundamental. The earnings, for a few years past, may have fallen off, bad crops, floods, or strikes in the principal industries may have produced conditions seriously affecting the gross receipts, while the operating expenses and fixed charges remained the same; short-term notes or a maturing bond issue may have created financial embarrassment. At all events, a crisis occurs and the railroad's credit cannot withstand it. Failure results. But the causes underlying it are not fundamental. And the remedies that need be applied are neither as comprehensive nor as radical as is necessary with failures of the primary type.

The third type, Class III, pertains to small, unimportant, often unfinished lines of railway. Sometimes the existence of the road was unjustified by the volume of traffic. Sometimes the road was built merely for strategic purposes. Sometimes the road was so grossly overcapitalized and mismanaged, during the construction period, that it became insolvent before it was born. At all events, the railroad is a thoroughgoing failure.[u] But this failure, due to the absence of its obvious public necessity, is not of great economic significance. Its securities are probably closely held and the failure is not confessed until the last phantom of its credit has vanished. In the restricted and local significance of their undertakings, and in the extent and thoroughness of their distress, the failures of these little local lines resemble the failures of small local industrial enterprises. Failures of this kind are hereafter called those of the third class.

Three Types of Reorganization.—Reorganization plans and expedients follow closely this classification of railway failures. The reorganization of a railway, the failure of which is of the first class, is thorough, comprehensive, and radical. Practically all securities, even small underlying closed first mortgage bond issues, are refunded. And while the holders of these underlying bonds are not ordinarily asked to endure any sacrifices, they are asked to refund their variety of divisional issues into a single comprehensive first mortgage bond issue covering the entire railway system. Ordinarily the interest rate on this single issue is lower than the average rate on the small issues which it refunds, so that it is often necessary to increase the principal or add a complement of junior securities in order to placate these old bondholders. The holders of junior bonds, provided the interest on them can be earned unquestionably, are usually given bonds of a "general" or refunding issue. All other bonds, upon which little or nothing was earned in the years before the failure, are forced to take a preferred stock in the new company. The old preferred and common stocks are assessed, and offered new preferred and common stock. As a result of these changes, a complex financial situation, involving a multitude of small divisional issues, followed by several layers of nondescript bonds, followed in turn by notes and preferred and common shares, is simplified and standardized. There are one or two senior issues of bonds, one issue of preferred stock, and one of common. Considerable amounts of new money are added through stockholders' assessments; the fixed charges are reduced by the refunding of the old underlying and first mortgage bonds into one or two issues of new low interest-rate bonds, and by refunding the junior bonds into preferred stock. The reorganization, like the failure it follows, is penetrating, drastic, and comprehensive.

---

[u] One little railroad of this type, the St. Louis and Hannibal, was organized in 1872 and the main line opened in 1882. In 1886 the company issued first mortgage 7 per cent bonds, yet has never paid a single coupon from then until now. A few years ago the road was reorganized, through refunding these bonds into common stock.

Reorganizations following failures of the second class are superficial compared to those described in the previous paragraph. As the failure is not fundamental, a radical readjustment of the financial structure is neither necessary nor advisable. Accordingly, no attempt is made to disturb more than the stocks and junior bonds, and no radical sacrifice is demanded of any security holder. In many cases the whole reorganization turns on the willingness of the holders of some large overlying issue of refunding bonds, notes, or debentures to refund these into preferred stock or income bonds, bearing the same nominal investment return. The charges on the junior bonds become contingent instead of fixed. In return for this sacrifice from the junior bondholders, the stockholders consent to an assessment, receiving in return securities of relatively high value. As a whole, such a reorganization disturbs a comparatively small number of securities, and these are only the uppermost layers of the financial structure. The failure is not serious and a serious remedy is not required.

Reorganizations of railway failures of the third class are exceedingly drastic. The little road has been bolstered up by every conceivable means. Probably when it failed the earnings were actually less than its expenditure. The rolling stock and roadbed are dilapidated. Consequently, relatively large amounts of receivers' certificates are issued immediately, in order to maintain the road in operation. At the time of reorganization, these must be paid. Yet the value remaining to the stockholders is so slight that they will not endure an assessment in order to maintain even their shadow of an equity. As a result, the full brunt of the reorganization falls on the bondholders. Ordinarily there is a single issue of bonds. Accordingly, the holders assess themselves to pay off the receivers' certificates and to furnish the requisite new money. In effect, they take over the ownership of the road from the old stockholders. In some instances, not only the stockholders' interests are eliminated, but also those of all the bondholders and the road is taken over by the holders of receivers' certificates. In cases of complete failure, the holders of the receivers' certificates may be forced to assess themselves to maintain the operation of the road.

The first of the three types just described stands for serious and fundamental failures of large roads followed by drastic and comprehensive plans of reorganization. The other two types are modifications of this—the second type representing less serious failures followed by merely superficial reorganizations, and the third type the utter failures of small local railways. In view, therefore, of the greater significance and greater intricacy of the first type of railroad reorganizations, the detailed discussions of the next two chapters will be primarily concerned with them.

CHAPTER V

MONEY REQUIREMENTS AT TIME OF RAILROAD REORGANIZATION [1]

Two Basic Problems: Raising New Capital and Reducing Fixed Charges.—Although it is evidently impossible to separate one aspect of the science of railroad reorganization from another, the whole subject is so intricate that, even at the risk of losing coherence and unity, it is much clearer to treat one topic at a time. Nevertheless it must be remembered that the topics covered in this and the succeeding chapter represent one organic whole. The problem of raising capital in any given reorganization cannot be separated from that of reducing fixed charges; the amount of assessments to be levied on stockholders is bound up with the sacrifices of the bondholders. Yet unless some effort is made to separate the various problems involved, a hopeless chaos of half-truths necessarily results. To introduce some kind of order into the subject, the present chapter is restricted to those aspects of railroad reorganization having to do with the immediate means of securing new money; the succeeding chapter concerns itself with the more permanent changes in the form and structure of the financial plan.

In this chapter are discussed the following topics: (1) treatment of floating debt holders, (2) the issue of receivers' certificates, (3) the uses for new money, (4) the sale of treasury assets, (5) assessment on stockholders, (6) reorganization underwriting syndicates.

Treatment of Floating Debt Holders.—When a receiver comes into possession of the property of a railroad, he is relieved of the fear of attachments, so that he has the opportunity to make a survey of the obligations standing against his property and to consider carefully the relative priority of the multitude of claims against it. Certain of these obligations must be paid, certain can be postponed, and others may be or should be adjusted and compromised. Ordinarily there is a heterogeneous mass of floating debt of varying dates of maturity, including wage claims and debts owed material men and farmers along the line who have supplied ties. In the larger reorganizations of the middle nineties the floating debt was almost always in excess of $10,000,000. Thus the Atchison, Topeka and Santa Fé had at its failure in 1893 over $10,000,000 of floating debt; so also had the Northern Pacific at the time of its failure in the same year. That of the Baltimore and Ohio was over $16,000,000, which amount was augmented by some $10,000,000 before a plan of reorganization was carried through. The floating debt of the Reading at the time of its last failure was estimated at over $25,000,000.[2] Such large amounts as these necessarily represent perplexing problems, especially as the exact status of various parts of the floating debt with respect to each other and the issues of bonds is usually difficult to determine. In the Norfolk and Western Railroad failure in 1893, for example, there was over $300,000 of wage claims alone remaining unpaid.

---

[1] This and the succeeding chapter discuss the details of railroad reorganization plans. The two chapters may be omitted by one interested only in a superficial view of the subject such as that given in the closing pages of the preceding chapter.

The student of corporation finance should remember that the technical details of current railroad reorganizations present the most complex, intricate, and unorganized and yet the most fascinating subject within the entire field of finance.

In very rare instances the holders of some or all of the floating debt consent—because of some implied responsibility for the welfare of the company—to accept inferior junior securities, thereby surrendering altogether their rights of priority. The following case is an example of this and while not drawn from the railway field it shows a feeling of responsibility which promoters of railways might do well to copy. The Northern Idaho and Montana Power Company was organized in 1909 by H. M. Byllesby and Company of Chicago, public utility promoters and engineers. It never proved a success because of the fact that the regions of Idaho, Washington, and Montana, which the company served, failed to use its services to an extent commensurate with the amount of capital invested. The company had outstanding $4,614,000 First Mortgage 6 per cent Bonds, upon which interest had not been fully earned for several years prior to January 1, 1917. Before that time H. M. Byllesby and Company, in acknowledgment of their implied moral—but not legal—responsibility for the company had donated to it several hundred thousand dollars, by canceling large amounts of indebtedness due from the company. At the time of the reorganization (plan dated January 2, 1917) H. M. Byllesby and Company and associated interests owned $1,742,500 par value of the First Mortgage Bonds and $517,000 of the floating debt. They agreed to accept preferred and common stock for their bonds, while the remaining bonds, held by the public, were allowed 60 per cent in new First Mortgage Bonds with 20 per cent in new preferred and 35 per cent in new common stock. In other words, the promoters consented to subordinate their bonds to those held by the public. In addition they took common stock in liquidation of their floating debt claims, and provided the new company with approximately $500,000 new money by underwriting $522,675 on the new bonds at 88—a price distinctly above what the bonds could command on the open market. Later, as a result of the economies accomplished by the reorganization and good management, the reorganized company proved successful. The case is remarkable for the sacrifice which the promoters voluntarily endured to protect the public investors and the general credit of the company.

---

[2] Daggett, S., Railroad Reorganization, 139 (1908).

The legal and equitable rights of all the claimants whose demands and their relative priority cannot be amicably agreed upon must be settled provisionally, at least. In addition, the question of priority arises between the floating debt holders and the owners of mortgage bonds and debentures. To adjust all these claims constitutes a very delicate problem, and the general principles to work upon are not clearly defined. The natural assumption, in accordance with the wording of the railroad mortgages, is that the holders of bonds issued under these mortgages have a prior lien on the assets of the bankrupt corporation under all circumstances. But the courts have not so ruled. As far back as 1859, a federal court directed that the receiver meet the claims of employees before paying the interest on bonds.[a] The court alleged the well-being of the public as an excuse. Gradually the same view was extended to other debts incurred in the actual operations of the road, on the ground that in no other way could the road render the required service to the public.

The Rule Developed in United States Courts.—During a series of important decisions,[b] the United States Supreme Court gradually advanced to the formulation of a doctrine since known as the "rule" in Fosdick v. Schall.[5] This rule, as now recognized and interpreted, is based on two rather significant postulates. First there is a distinction made between the fundamental property or capital of the railroad and its current

---

[a] 15 Am. Rd. Jour. 475, 598—Central Ohio, Steubenville, and Indiana case. Until 1878 the courts were inclined to interpret the mortgage instruments according to the strict letter of the law and to give bondholders the priority of lien the letter of their mortgage implied. In more recent years state courts, as a whole, have been stricter in their interpretation than federal courts.[3] For example, as late as 1886 the New York Court of Appeals, in a leading case, would not permit the receiver to place the claims for labor ahead of mortgage bonds. "We are unable to discover any principle upon which the claims of employees for labor performed before the appointment of the receiver can be so extended as to diminish, or impair, or postpone the lien of the mortgage."[4] This view is rare.

[b] 11 Wall. 459 (1870); 91 U. S. 603 (1875); 94 U. S. 798 (1876); and finally in the important Wallace v. Loomis case, 97 U. S. 146 (1877), where Justice Bradley said: "The power of a court of equity to appoint managing receivers of such property as a railroad when taken under its charge as a trust fund for the payment of encumbrances, and to authorize such receivers to raise money necessary for the preservation and management of the property and make the same chargeable as a lien thereon for its repayment, cannot at this day be seriously disputed. It is a fact that jurisdiction, always exercised by the court, by which it is its duty to protect and preserve the trust funds in its hands. It is undoubtedly a power to be exercised with great caution, and, if possible, with the consent or acquiescence of the parties interested in the fund." This was quoted later in the Miltenberger case (106 U. S. 310) as fundamental.

---

[3] See Metcalfe, L. S., Jr., "Priority over Mortgage of Debts Contracted by Railroads before Receiverships," 39 Cent. Law Jour. 241 (1894).

[4] 103 N. Y. 245 (1886). List of supporting cases cited, 103 N. Y. 246, 247.

[5] Fosdick v. Schall, 99 U. S. 235, decided March, 1878. This leading case will be discussed in the notes immediately following.

property in the form of current income; and second those current debts contracted to meet imperative operating expenses are distinguished from those contracted for extraordinary expenses and improvements not absolutely necessary to maintain the road's operation. The rule in Fosdick v. Schall permits a court to insist that its receiver meet all his current expenses during the receivership before he shall use any current income to meet the charges on capital—bond interest, rentals, and the like. It also provides that if any of the current income, in the period prior to the receivership, had been deflected from its proper and necessary use of meeting imperative operating expenses, to meet capital charges, then to that extent might the receiver give the necessary operating expenses remaining unpaid a priority over the lien of mortgage bonds.

Since the rule in Fosdick v. Schall was laid down, neither the lower federal courts nor the Supreme Court have shown uniformity in interpreting it.

As one legal writer expressed it: "The decisions of the federal circuit courts have reflected the uncertainty of the Supreme Court, and the fate of each claim has depended to quite an extent on the ideas of the judge who happened to be sitting in the case."[6]

One current of opinion set in toward a total extinction of the presumptive rights of mortgage bondholders, and the other toward the limitation of the priorities of current debts.[c] The

---

[c] The first tendency is shown by the Supreme Court in 1878.[7] In the Burnham case in 1884, the acts of a receiver in paying old debts, even though there was no evidence that the corporation had deflected current income to capital charges, was confirmed. Relying on these and similar decisions, certain of the federal courts, charged with the administration of the receiverships of the middle nineties, sought to emasculate entirely the lien of the mortgage bondholders. The extremes are probably represented by Judges Hanford and Caldwell. The former, in the litigation growing out of the Northern Pacific receivership, asserted that "he who takes a mortgage on a railroad does so with the knowledge that the railroad must be operated, and that its earnings must, so far as necessary, be absorbed in the payment of operating expenses."[8] Judge Caldwell in one

---

[6] Dickson, C. A., "Rights of Material and Supply Men in Railroad Foreclosure." 30 Am. Law Rev. 529 (1896).

[7] Hale v. Frost, 99 U. S. 389 (1878); Burnham v. Bowen, 111 U. S. 776 (1884); and St. Louis R. R. Co. v. Cleveland Ry. Co., 125 U. S. 658 (1888).

[8] F. L. & T. Co. v. Nor. P. R. R. Co., 71 Fed. 246 (1896).

whole matter seemed to turn on a balance between two conflicting sets of motives in the minds of the courts. On the one side are the motives of fairness to labor, small contractors, farmers who supply ties, and such creditors who may not be supposed to investigate the general credit of the railroad, but

---

important opinion[9] went so far as to give practically all current debts a priority over mortgage obligations. He justified his attitude in an address before the Greenleaf Law Club of St. Louis[10] on the ground that there is sometimes collusion between the stockholder management of the railroad and its bondholders, citing the famous Memphis and Little Rock case.[11]

The opposite, more conservative current of judical opinion has limited the scope of the rule in Fosdick v. Schall. In the Miltenberger case (called by Supreme Court Justice White "a leading case"[12]), the Supreme Court stated that "the discretion (to give pre-existing debts a priority) should be exercised with very great care," and proceeded to limit specifically the priority of numerous classes of general creditors.[13] Noting some eight years later, the extreme liberality with which certain federal court judges were wont to interpret the rule in Fosdick v. Schall, the Supreme Court said: "One holding a mortgage debt upon a railroad has the same right to demand and expect of the court respect for his vested and contracted priority as the holder of a mortgage on a farm or lot. . . . No one is bound to sell to a railroad company or to work for it, and whoever has dealings with a company whose property is mortgaged must be assumed to have dealt with it on the faith of its personal responsibility, and not in expectation of subsequently displacing the priority of its mortgage liens. . . . We emphasize this fact of the sacredness of contract liens for the reason that there seems to be growing an idea that the chancellor, in the exercise of his equitable powers, has unlimited discretion in this matter of the displacement of vested liens."[14] And Chief Justice Fuller stated a little later, "We readily agree that the concession to a mortgagor company of the power through its own act to displace vested liens by unsecured claims is dangerous in the extreme."[15]

During the time that the rule in Fosdick v. Schall was being interpreted by the courts, many magazine articles, legal notes, and discussions appeared, all concerned with the justice and expediency of superimposing current expense debts over mortgage liens.[16]

---

[9] Farmers L. & T. Co. v. Kan. City W. and N. R. R., 53 Fed. 182.

[10] 30 Am. Law Rev., 161.

[11] 20 Fed. 260. Justification for this point of view is argued at length in an elaborate note by Cohn, M. M., 53 Fed. 192. See also Ames v. Union Pac. Ry., 74 Fed. 335 (1896).

[12] 197 U. S. 183.

[13] Miltenberger v. Longansport Ry. Co., 106 U. S. 286 (1882).

[14] Kneeland v. American Loan & Tr. Co., 136 U. S. 89 (1889).

[15] Quincy Mo. & Pac. R. R. v. Humphreys, 145 U. S. 82 (1891). See also Thompson v. Western Car Co., 149 U. S. 95 (1893); 71 Fed. 29 (1895).

[16] The best unbiased treatment is Dickson, C. A., "Rights of Material and Supply Men in Railroad Foreclosures," 30 Am. Law Rev. 520 (1896). A less comprehensive treatment with less apparent insight is Metcalfe, L. S., Jr., "Priority Over Mortgage of Debts Contracted by Railroads before Receiverships," 39 Cen. Law Jour. 241 (1894). An early statement, now of little value, is Bispham, G. T., "Rights of Material Men and Employees," 3 Am. Bar Assn. Rep. 167 (1880), which aims to show the danger of the rule in Fosdick v. Schall, then being established. Thompson, S. D., "The Court Management of Railroads," 27 Am. Law Rev. 481 (1893) takes the same point of view in a polemic against the management of railroads by the court. There was an elaborate legal note by Cohn, M. M., covering the subject, 53 Fed. 182. Note also on the subject in St. Louis T. Co. v. Riley, 70 Fed. 32 (1895). A more recent discussion is Ingersoll, H. H., "Rights and Remedies of General Creditors of Mortgaged Railways," 19 Yale Law Jour. 622 (1910).

whose services and supplies must be furnished, regularly and liberally, in order to insure uninterrupted operation. One legal authority went so far as to call the expenses of operation "a part of the necessary costs of the litigation." [17] Coupled with this is the imperative public necessity of operation, a necessity which the public character of the railroad business places ahead of the merely private property rights of stockholders and bondholders. On the other side lies the respect which the courts must extend toward contracts, especially those resting on a mortgage of specific property.[18]

Practical Questions of Application of the Rule.—In the application of the rule in Fosdick v. Schall to concrete cases, two insistent practical problems are presented: What are necessary operating expenses, and over how long a period before the receivership shall the priority order be extended? A long series of cases decided in the Supreme Court presents somewhat conflicting opinions as to what constitute necessary current operating expenses.[d] In two important decisions [24] the

---

[d] The Supreme Court has specifically defined current operating debts as "debts not contracted upon the personal credit of the company but to keep the road itself in condition to be used with reasonable safety for the transportation of persons and property, and with the expectation of the parties that it is to be met out of the current receipts of the company." [19] Such current necessary expenses do not now include the costs of betterments, no matter how desirable.

Originally, the rule in Fosdick v. Schall [20] was worded "necessary operating and managing expenses, proper equipment and useful improvements." But "useful improvements" were subsequently denied in the lower courts.[21] Even a debt for rails "imperatively required in order that the road may be safely used for transportation of persons and property" was denied priority on the ground that the quantity of rails was so large as to constitute a reconstruction of the road.[22] The Supreme Court has even denied the priority of a debt for new ties to replace decayed ties, on the ground that the road could somehow operate with the old ties.[23] It courts have tried to define specifically the current debts that could claim priority. These are the debts for labor, the unpaid balances due connecting roads,[25] and materials for such maintenance as must be "done before the road can be occupied or used," but not for such as is intended "to replace old or worn-out counterparts." [26] In other words, debts for services and materials without which the established routine operation of the road would stop.[27] The other practical question in this connection is the age of the claims. All decisions admit that if a merchandise creditor has allowed his account to remain uncollected for a considerable period, he must be presumed to be depending on the general credit of the road. The debt, no matter of what character, is therefore not entitled to any priority. But the exact period of grace has been left to the judges of the federal courts appointing the receivers, and the Supreme Court has confirmed their decisions whenever the particular facts show them to have been reasonable and just.[e] A period of six months has been explicitly approved by the Supreme Court in a comparatively recent decision [31] and has been quite generally adopted as a working principle by the federal courts of the East and Middle West.[32]

---

[17] High, J. L., A Treatise on the Law of Receivers, 504.

[18] A summary of the present attitude of practicing reorganization attorneys is given in an essay by Byrne, J., in Stetson, F. L., Editor, Some Legal Phases of Corporate Financing, Reorganization and Regulation, 123 (1917).

[19] So. Ry. Co. v. Carnegie Steel Co., 176 U. S. 257, 285 (1900).

[20] 99 U. S. 235.

[21] Ill. T. & S. P. v. Doud, 105 Fed. 123 (1900) and R. I. Loc. W. v. C. T. Co., 108 Fed. 5 (1900). And in the Supreme Court, Wood v. Guaranty Tr. Co., 128 U. S. 416 (1888).

[22] Lackawanna Iron & Coal Co. v. F. L. T. Co., 176 U. S. 298 (1900).

[23] Gregg v. Metro Tr. Co., 197 U. S. 183 (1905).

[24] Gregg v. Metro Tr. Co., 197 U. S. 183 (1905) and the earlier Miltenberger v. Logansport Ry. Co., 106 U. S., 286 (1882).

---

should be noted, however, that this latter case has the force of this extreme position somewhat weakened by the dissent of three of the justices on the ground of public policy.

[e] It is impossible to state definitely any arbitrary rule. In one case the Supreme Court approved a limit of three months.[28] Justice White later called this the leading case dealing with the preference of different claimants [29] while another court allowed a debt of nearly two years to have preference over the bonded debt.[30]

---

[25] Miltenberger v. Logansport Ry. Co., 106 U. S. 286 (1882).

[26] Clev. C. & S. v. Knickerbocker Tr. Co., 86 Fed. 73 (1898).

[27] For more extended discussion of the preferred claims in the various cases mentioned in the three preceding notes, see particularly the Miltenberger and Gregg cases, cited above. The strict and liberal interpretations are clearly contrasted in the prevailing and dissenting opinions of the latter case. See also Machen, A. W., Jr., Modern Law of Corporations, 564 (1908).

[28] Miltenberger v. Logansport Ry. Co., 106 U. S. 286 (1882).

[29] 197 U. S. 183, 193.

[30] Atkins v. Ry. Co., 3 Hughes C. C., 307. See also N. P. R. R. v. Lamont, 69 Fed. 23 (1895). Note on time fixed in different decisions prior to 1884, 22 Fed. 476.

[31] Gregg v. Metro. Tr. Co., 197 U. S. 183 (1905).

[32] See note, High, J. L., A Treatise on the Law of Receivers, 512, stating courts which have and which have not accepted the six months' limit. The "six months' rule" is accepted by eastern state courts. For example, "the usual rule is to allow prior claims for materials and labor for the six months preceding the appointment of a receiver." Rutherford v. Penn. Mid. R. R., 178 Penn. 38 (1896). Judge Caldwell asserted explicitly there was no six months' limit. Farmers' Loan & Tr. Co. v. Kan. City Ry. Co., 53 Fed. 182 (1892). The Supreme Court has stated that the six

The Issue of Receivers' Certificates.—Although the receiver may determine that, from every motive of law, justice, and expediency, it is wise to pay immediately certain current debts of the railroad, he cannot move unless he secures the funds. Ordinarily, too, the physical condition of the road is such as to demand immediate expenditures for betterments and neglected maintenance in order to insure the safe and economical operation of the trains. Beset with these demands, the receiver of a bankrupt railroad ordinarily considers the procuring of money as the first step in his administration of the property.[33]

This is difficult. The road probably has mortgages on the most valuable parts of the line. Every expedient for raising new money has been resorted to by the management in the period prior to the receivership. And the receivership itself has further depressed an already low general credit. Current bond interest can be deflected to the payment of current operation charges and improvements, but this is ordinarily insufficient. The receiver must, therefore, find new sources of money quickly in order to meet the public demands of a safe and efficient railway service.

This new money is ordinarily obtained through the issue of receivers' certificates. This form of security came into existence less than fifty years ago.[34] It owed its origin to the extreme difficulty encountered by a receiver of an impoverished road in securing the money required to keep the road in operation. He could not borrow on the credit of the road nor extract money from stockholders. In such extreme cases the courts permitted their receivers to borrow on the credit of the "whole estate" within the control of the court on the theory that an expenditure of new money was necessary to preserve the property from destruction and therefore was of interest to

---

months' rule did justice ordinarily, but that older claims might be given priority in unusual circumstances. Sou. Ry. Co. v. Carnegie Steel Co., 176 U. S. 285 (1900).

[33] See previous brief discussion, Book I, pages 141 to 144.

[34] Brief outline of origin, Cleveland and Powell, Railroad Finance, 243 (1912); also Carr, W. A., Receivers' Certificates, 1 Penn. Law Series 593 (1895).

all parties concerned.[35] And from these extreme cases the practice has been extended until it has become the custom for courts to allow their receivers to issue receivers' certificates which take precedence over the pre-existing claims of general creditors[36] or even of the mortgage bondholders.[f] But it cannot be assumed, however, that, even in railway receiverships, the certificates are a prior lien on the entire property of the corporation.[g]

The legal or statutory authority under which the receiver

---

[f] The priority of the certificates, unless expressly limited by the court, reaches under any debts contracted by the road.[37] But if the receiver was appointed at the request of certain junior mortgage bondholders, he would not ordinarily be permitted to issue receivers' certificates which take precedence over the pre-existing claims of general creditors or even of mortgage bondholders.[38] A later decision of the United States Court of Appeals seemed to limit the liberality of the earlier decisions:

"The power to authorize the issuance of certificates is limited by and is coextensive with its obligation to conserve the property in its custody, and any expenditure of money that has not this primary purpose for its object is beyond the power of the court and unauthorized. To create an indebtedness which shall have priority over the claims of persons interested in the property taken possession of by the court is a serious matter."[39] The matter is by no means clear, as a liberal interpretation of the priority of operating expenses—even before the receivership—as laid down by the Supreme Court in the rule in Fosdick v. Schall, and interpreted in the Illinois Midland case[40] would seem to give the court unlimited power in the issue of receivers' certificates.[41] In actual practice, the court tries to be precise in defining the priority of the receivers' certificates it authorizes. In the famous Wabash case (failure of 1884) the court sought to distinguish between the lien of receivers' certificates issued to pay "back claims against the body of the property" and those issued for general reconstruction purposes.[42]

[g] A study of 45 separate issues of railway and traction receivership certificates indicates that 14 only had a first lien on the corporate property. The lien must be specifically defined in the court order authorizing their issue.[43]

---

[35] Early leading case, Myer v. Johnson, 53 Ala. 237 (1875).

[36] Receivers' certificates may even be given priority over the claims for current operating expenses under the rule in Fosdick v. Schall. Bank of Commerce v. Cent. Coal & C. Co., 115 Fed. 878 (1902).

[37] See 13 Atl. Rep. 271; also Ames v. Union Pac. Ry., 74 Fed. 335 (1896).

[38] See a series of discussions in the federal courts, by no means uniform, 54 Fed. 556 (1893); 62 Fed. 771 (1894); 71 Fed. 776 (1896); 79 Fed. 196 (1897); 102 Fed. 382 (1900).

[39] Steel, etc., v. Ramsay, 176 Fed. 865 (1910).

[40] Union Tr. Co. v. Ill. Midland R. R. Co., 117 U. S. 434 (1886).

[41] Also Amer. Tr. Co. v. Metro. S. S. Co., 183 Fed. 250 (1910); and 190 Fed. 113 (1911); Atl. Tr. Co. v. Chapman, 208 U. S. 360 (1908).

[42] See 38 Chron. 731, 754. For references to a number of instances of liberal use of receivers' certificates, see Cleveland and Powell, Railroad Finance, 243 (1912). See also the standard legal treatises on receivers: High, Smith, Beach, etc. Also Hardy, C. A., "The Power of a Court of Equity to Authorize the Issue of Receivers' Certificates," 44 Cent. Law Jour. 344 (1897). See also Book I, Chapter VI, page 141.

[43] Hale, E. P., Receivership Certificates, Harvard Graduate School of Business Administration (1926). Also see cases cited in preceding notes.

acts in issuing his certificates is by no means clear. In ordinary practice a receiver of a railroad asks of the court permission to issue certificates. In this petition he must designate in considerable detail the purposes for which he wishes to use the proceeds obtained from their sale; yet the general purposes for which receivers' certificates may be issued have never been precisely defined by the courts.[h] But it may be said that the courts are willing to permit the receiver to issue his certificates without much question and to any reasonable amount, if it appears that the interest and principal can be met from the current earnings of the road, or if the bondholders consent to their issue.[45] Certificates may even be issued if they infringe on the actual capital of the railroad property—even to the point of cutting under prior lien mortgages[46]—provided it is necessary to obtain money for the preservation and operation of the property.[i] They may also be issued to meet the debts for labor and necessary materials during the period just

---

[h] The mere appointment of the receiver does not empower him with the court's authority to borrow on receivers' certificates. Nor does the assumption by the receiver that the court will permit him to borrow give the borrowings a priority over other forms of indebtedness.[44] Apparently the court must be convinced that the materials and services are required for the actual operation—necessary operating expenses as defined in the earlier part of this chapter, and would frown upon allowing the expenses of extraordinary replacements and betterments to be paid out of the proceeds of receivers' certificates. It should be noted, however, that the distinction will depend upon the theories of railroad accounting and the standards of operating efficiency adopted by the courts.

[i] On November 2, 1917, the bondholders' committee of the Gulf, Florida and Alabama Railway urged the depositing bondholders to accept a drastic reorganization plan which revealed an interesting case of the gradual emasculation of the bondholders' lien by a receiver. It appeared that $500,000 of receivers' certificates had been given by the court a lien ahead of $4,000,000 first mortgage bonds. "Of these only $222,500 had actually been sold and the proceeds used largely to satisfy lien claims incurred previous to the receivership, and for operating deficits." The remainder could not be sold, and there was an operating deficit of $10,000 per month; "so that a debt is piling up prior to the bonds which must be stopped at once to preserve any value in the bonds."

---

[44] For discussions see the leading Illinois Midland case, 117 U. S. 434 (1886), and other cases cited in note (f). Rogers B. C. Co. v. Omaha K. C. E. R. R., 154 Fed. 629 (1907).

[45] Rutherford v. Penn. Midland R. R., 178 Penn. 38 (1896). The Pennsylvania Supreme Court permitted issue of receivers' certificates to complete a line at "the request of a very large proportion of bondholders, and without prejudice to the non-assenting."

[46] Leading case Wallace v. Loomis, 97 U. S. 146 (1878); Union Tr. Co. v. Ill. Midland R. R. Co., 117 U. S. 434 (1886). For comments on this doctrine see Kneeland v. Am. Loan & Tr. Co., 136 U. S. 89 (1889).

prior to the receivership, although such certificates may not have the same priority as those issued to pay the debts of the receivership.[47] When this liberality of issue is carried to an extreme, courts of equity may so burden a railroad with receivers' certificates that the value of the mortgage bondholders' lien is absolutely obliterated. This is exactly what has happened in several recent instances in which the bondholders have had nothing of real value left when the time came to discharge the receiver. It is this power of the courts of equity, supported by a series of early Supreme Court decisions laid down years ago,[48] that jeopardizes both the spirit and the letter of railroad mortgages. The possible exercise of this power by the federal courts weakens every public utility bond. It has been called the "extreme limit of the most extraordinary powers of a court of chancery."[49] Quite so, and one might call it an unjustifiable emasculation of the substance of presumably inviolable contracts.

The Need for New Money.—During the period of receivership, the court under which the receiver administers his trust provides the funds required for improvements and operation, either through the deflection of current income or through the issue of receivers' certificates. The real problem arises, however, when the time comes to put into effect some plan of reorganization. No longer is it possible to borrow on the authority of the court through the issue of receivers' certificates. So that any comprehensive plan of reorganization involves the raising of a considerable sum of money.

New money is ordinarily required at the time of reorganization for five separate purposes. (1) The accumulated floating debt must be paid off or else be adjusted. If an adjustment is made with the creditors, it is almost always effected on the basis of some compromise involving a considerable money payment. In case this floating debt has already been funded into receivers' certificates, these must be paid off with new money in the same way as if the receivers' certificates had been issued to pay for the operation and improvements of the road during the receivership. (2) Money must be supplied to pay off the debts contracted during the receivership. These debts may have been incurred in order to meet the current expenses of operation, or they may have been incurred for the purpose of improving the railroad property. It has been noted already in connection with the issue of receivers' certificates that enormous amounts of money are often expended by the receiver for the improvement of the road. As the benefits of these improvements pass on to the new corporation, it may justly be compelled to meet them out of the fund supplied to it at the time of reorganization. (3) Money is required to meet the direct expenses incident to the reorganization and the receivership. These are often heavy. Sometimes the court has appointed a prominent politician receiver, and the reorganization committees must tolerate an extortionate toll before he will release his grip. There may be a host of parasites—members of the reorganization committees who have done nothing, masters who have taken testimony, attorneys who have rendered merely nominal services—that must be paid off before the new corporation can acquire the assets of the old. There are, too, many legitimate expenses—printing, postage, court fees—which tend to swell the amount. (4) Though the underlying liens are not disturbed, so that no new money is required to care for them, one or more of the junior liens is usually foreclosed, and money must be provided with which to pay off the holders who do not deposit their bonds under the reorganization plan.[50] (5) The new corporation must be provided with some working capital. While ordinarily the property is delivered over by the receivers in a better condition than when they assumed control,[j] the new corporation must have means to carry forward ordinary improvements, without borrowing, during the period of rehabilitation. This is especially important as the new corporation, but recently emerged from the receivership, would be able to sell its securities only at a prohibitive discount.

---

[47] B. of C. v. Cent. C. & C. Co., 115 Fed. 878.

[48] Am. B. Co. v. Heidelbach, 94 U. S. 798 (1876); Wallace v. Loomis, 97 U. S. 146 (1877); Fosdick v. Schall, 99 U. S. 235 (1879); Swann v. Clark, 110 U. S. 602 (1883); Union Tr. Co. v. Ill. Midland R. R. Co., 117 U. S. 434 (1885).

[49] Machen, A. W., Jr., A Treatise on the Modern Law of Corporations (1908).

---

[50] This matter is discussed in detail with special reference to the Pere Marquette reorganization. Book V, Chapter VI, page 1052. See also Chapter III, note (xx).

These various purposes require in the aggregate a very large amount of actual money. This can be provided in a few rare instances by the sale of securities or other assets remaining in the treasury of the old corporation. Ordinarily, however, it must be subscribed by the various parties concerned in the permanent welfare of the railroad. Various methods are used for getting this money. These are described in some detail in the succeeding parts of this chapter.[k]

---

[j] This may not be due to skill on the part of the receivers. It is due rather to the power of the receivers to issue and sell their certificates on the credit of the court's sanction. As a result many improvements in roadbed and equipments are made which could not have been financed under the impoverished credit of the old management. Many instances exist, however, in which the receiver shows greater managing ability than the old management. This is quite often true in the case of the receivership of small railroads.

[k] The disposition of the money obtained at the time of a drastic reorganization of a small, thoroughly unsuccessful railroad representative of Class III, as described in closing sections of preceding chapter, is shown by the following table. This particular reorganization is noted—perhaps notorious—because of the fact that money was not raised to pay the receivers' certificates; in fact the cash requirements of the reorganization were kept as small as possible.

Disposition of Proceeds of Sale of Stock

(Common stock of reorganized company at $12 a share)

Obligations of receiver for equipment acquired during receivership, tax loans, claims and judgments, interest, etc.	$1,105,491.52
To retire outstanding equipment obligations issued prior to receivership, with interest	930,237.50
Legal expenses of counsel for trustees in the foreclosure of the railroad and two terminal company mortgages, and the sales thereunder	66,000.00
Reorganization expenses, including trustee's fees and disbursements, partly estimated	185,224.93
Compensation and expenses of receivers' certificates committee in connection with the purchase and management of the properties, the organization of the new company, the negotiation of the underwriting, etc.	84,546.05
Compensation which may be allowed by the court to the receiver and his counsel	112,500.00
Commission to syndicate managers and underwriting syndicate	216,000.00
To treasury of new company for working capital, improvements and repair of equipment ($288,000)	900,000.00
Total	$3,600,000.00 [51]

---

[51] Reorganization plan of the Atlanta, Birmingham and Atlantic Railroad, dated December 15, 1915, page 5.

The Sale of Treasury Assets.—The simplest method conceivable which a railroad in the process of reorganization may employ to raise money, is the sale of securities in its treasury. If the railroad has securities of other corporations in its treasury previously held for investment these can usually be sold for money[l] because its own embarrassment has not affected their value; or if it has preserved for itself certain valuable privileges these may be sold to other corporations.[m] But instances of this kind are rare, as a bankrupt railroad will probably have used up all such means of securing money long before its receivership. A sale of its own securities is ordinarily difficult, as any prior lien or underlying first mortgage bonds will probably have been sold long before the crisis. A widening knowledge of the troubles of the road makes impossible the sale of any junior or inferior bonds except at a prohibitive price. Nor can stock, quoted perhaps at less than $10 a share, be sold to yield any considerable amount of money.[n] The success of a few rare instances in the past, in

---

[l] As in 1898 the Baltimore and Ohio sold approximately $3,800,000 Western Union Telegraph stocks to a syndicate for about 90 per cent.[52]

[m] Thus in 1887 the Baltimore and Ohio Railroad, when temporarily embarrassed, sold its express business for $1,500,000 in the readily marketable stock of the United States Express Company, its telegraph business to the Western Union Telegraph Company for $5,000,000 of the latter's stock; and, in the following year, its sleeping car business to the Pullman Company for over $1,000,000 in money.[53]

[n] Once in a while when the general financial conditions have been particularly auspicious, it has been possible for an embarrassed railroad to sell sufficient junior securities to fund its floating debt. Contrary to all the canons of sound finance, President Gowen planned to bring the old Philadelphia and Reading Railroad out of its second receivership by the sale of an anomalous bond, junior to the common stock, at 30 per cent of its par value, and of certain other bonds in the treasury. But the revenue of the road was equal to its fixed charges at the time and its senior bonds had a relatively high credit.[54]

Just before the failure of the second St. Louis and San Francisco Railroad in 1913 bankers closely associated with the road had sold junior bonds; but the representations said to have been made at the time of the sale were creditable to neither the bankers nor the officials of the road.

For the year 1911-12 the Georgia and Florida Railway had a deficit of $320,000—the previous year a surplus of $30,000. To try to ward off a receivership, the common and preferred stockholders purchased 6 per which a sale of the junior securities of a bankrupt railroad has relieved a crisis, are too individual to vitiate the generalization that such sales cannot be relied upon to secure sufficient money to effect a permanent rehabilitation of the road. A railroad in the presence of a financial crisis cannot rely on mere palliatives.

---

[52] Daggett, S., Railroad Reorganization, 27 (1908).

[53] Daggett, S., Railroad Reorganization, 14 (1908).

[54] Daggett, S., Railroad Reorganization, 355 (1908).

A few illustrations from early and recent railroad history show the straits into which a railroad may be driven just before a crisis. Eight million dollars of 7 per cent Convertible Gold Bonds were sold by the Erie Railway—several years before the receivership of 1875 and in the midst of a panic—to Bischoffscheim and Goldschmidt of London so as to net the road after payment of commissions "etc.," $4,249,989—and to accomplish this the earnings for the first year had to be fraudulently inflated so as to permit the declaration of dividends on the preferred and common stocks.[55] The Reorganization Committee of the Atchison discovered that during the five years prior to the receivership of 1895, the management had paid out more than $1,000,000 for discounts and commissions on less than $10,000,000 of "guarantee fund notes," issued originally in 1888 as purely an emergency measure. McLeod was paying more than 10 per cent in order to carry his ill-advised purchases of stock in the years just before the Reading receivership of 1893. Immediately before its receivership in 1915 the Missouri, Kansas and Texas Railway was paying upwards of 10 per cent on its accumulating floating indebtedness.[56]

Assessment of Stockholders.—It was pointed out in the preceding chapter that every railroad reorganization turns about two central points—the procuring of new money and the reduction of fixed charges. We have already observed, in this

---

cent General Mortgage Bonds of the company at 52. Such a proceeding is unusual at the present time.

---

[55] Mott, E. H., Story of Erie, 232 (1901).
[56] Book IV, Chapter VII, note (e).

chapter, that receivers' certificates although issued and sold in large amounts without difficulty during the receivership, are not capable of furnishing any new money that can be brought into the permanent capital of the road. The court will, almost invariably, require their payment in money as a condition of the termination of the receivership.[57] They are merely temporary expedients. Similarly little or no reliance can be placed on the sale of miscellaneous securities and junior bonds and stocks from the treasury of the bankrupt road. Two and only two ways remain to secure resources that can remain as part of the permanent capital of the road—either the forced payments from the old security holders, or voluntary subscription by bankers and investors. The former represent the contributions or assessments ~~levied on the old security holders~~ as a condition of participation in the ownership of the new company. The latter represent the sale of valuable securities to underwriting syndicates.

The use and importance of assessments on old security holders has steadily increased since the reorganizations of the period following the panic of 1873.[o] They are in accord with the general tendency to impose drastic sacrifices on the holders

---

[o] Daggett concludes from the cases examined by him that assessments were more frequent after the panic of 1893 than before.[58] This would seem to be borne out by the presumption that the later reorganizations were more drastic than the earlier ones. On the other hand, the statistics of the 57 reorganizations between 1884 and 1899, gathered by Meany, do not seem to support this belief. Of the 57, 17 plans were announced prior to January 1, 1894. Of these, 13, or 77 per cent, involved assessments on either or both stocks and bonds; of the 40 plans announced after 1894, 25 involved assessments, or 62½ per cent.[59] The writer believes that the generalization of Daggett is correct; and that the opposite conclusion to be drawn from Meany's statistics is due to the fact that he included many small financial readjustments. Many students of the subject, by a confidence in mere ungraded statistics, do not give sufficient attention to the distinction between large and small reorganizations, and the individual conditions of the preceding failure. Certain it is that not a single important railroad reorganization has occurred from 1893 down to 1925 that has not been predicated on a considerable money payment by the security holders. Tables giving assessments in recent reorganizations are given later. See page 1025.

---

[57] Of course this is not invariably true. See Book I, pages 142 and 143.

[58] Daggett, S., Railroad Reorganization, 351 (1908).

[59] Poor's Manual of Railroads (1900).

of the old securities as the price that enables them to preserve the shadow of their equity.[p]

Apportioning of Assessments—A Question of Practical Expediency.—These assessments arise from the necessities of the road, and their distribution among the different classes of security holders is, unfortunately, treated much more as a problem of expediency than of justice. The fundamental economic and legal distinction between the stockholder and the bondholder is usually forgotten, and it is growing more and more to be the practice of railroad reorganizations to look at the position of all the classes of junior security holders as differing among themselves only in degree and not in kind. And while it is recognized that the common shareholders ought to suffer most in reorganization, the members of the committee are concerned more with securing the required amount of money, somehow, than with meting out justice in accordance with a more or less obsolete distinction between owner and creditor. The second Atchison reorganization marked the transition from the old theories of reorganization to the new,[61] and this very point is excellently illustrated by a circular sent to the junior bondholders at the time. After stating that the amount of money to be raised amounted to $14,000,000, the reorganization committee went on to say: "The stockholders in the ordinary course should provide the whole of this amount . . . but the proportion of the assessment that would be borne by the stockholders could only be gauged by the amount

---

[p] This idea has required a good deal of time to penetrate the financial consciousness. For historical illustration, certain London and Amsterdam stockholders of the old Denver and Rio Grande objected to an assessment of $8, as far back as 1885. The editor of *The Commercial and Financial Chronicle* remarked: "The stockholders of American railroads have got to face the fact that they have no rights as against mortgage bondholders; and further, that they (the stockholders) by their management of the company are the parties responsible for the kite-flying, ill-judged extensions, and the payments of dividends, which usually bring the property to bankruptcy."[60]

---

[60] 41 Chron. 76 (July 18, 1885).

[61] This matter was discussed at some length in Book V, Chapter IV.

of assessment that they would be willing to pay in order to protect their rights. This amount is believed to be $10 per share, and it is necessary that the second mortgage bondholders shall provide the remaining $4 for their own protection."

This statement embodies the theory of allotment of assessments now universally followed by railroad reorganization managers. The amount of money required is first determined from the reports of the engineers, traffic experts, attorneys, and receivers. The amount of assessment which the common stockholders will stand is then estimated by the bankers, their judgment being guided by both the current market price of the common stock and the probable market price of the new preferred and common shares which the reorganization managers propose to allot to the common stock. The same processes of reasoning are applied to the old preferred stock. If the amounts which the two classes of stock are probably willing to pay in order to retain an interest in the reorganized railroad are not equal to the amount which must be raised from the security holders, then the remainder is assessed against the junior bondholders. Entirely practical questions fix the relative amounts of assessments. How much does the road need and how much can be drawn out of each class of security holders and how little given in return? Key In accord with this principle, based on expediency and not on justice, the assessments on the stocks of roads passing through a serious crisis (Class I, as described at the close of the preceding chapter) primar are smaller than those on roads suffering from a temporary embarrassment—reorganizations of Class II. The stockholders have less at stake in the former case and can therefore be counted on to contribute less. secon

Assessments in Reorganization of Important Roads.—In the reorganization of the Pere Marquette of 1916, illustrative of Class I, these principles are exactly portrayed. In order to secure the requisite amount of money, not only were the three classes of stock required to pay an assessment, but the two classes of junior bondholders were also called upon as well. A preferred stock was offered for the assessment, and only a small bonus of common stock. Under these circumstances, the common and even the preferred stockholders would be willing to pay only a small assessment. It was fixed at 9¾ per cent. Moreover, since little or no value remained to the equity of the junior bondholders, no distinction was made between any of the junior securities. The reorganization managers considered them all equally bad. And if the assessment was placed as low as 9¾ per cent, the full requirement of new money could be obtained only as the two outermost layers of junior bonds paid the full assessment, just as if they had been common and preferred stockholders.

In the recent comprehensive reorganization of the St. Louis and San Francisco, a somewhat different means was taken. A valuable security, general first mortgage bond (the same issue as that into which the underlying bonds were refunded and a part of the same issue that was sold to an underwriting syndicate), was offered to the stockholders for their assessments. Under these circumstances the payment of a large assessment could be counted on, especially as a liberal bonus of common stock was offered with the bonds. Accordingly, the assessment was made 50 per cent, but arrangements were made at the same time to enable stockholders to sell their new bonds so as to reduce the actual assessment to a small sum.

In reorganizations of Class II, those following temporary embarrassment rather than serious failure, the assessments to the stockholders are consistently large. As already pointed out, the expediency of these heavy assessments is based on the presumption that, since the equity remaining to the stockholders is large, they will endure a large assessment in order to preserve it. And, again, because the railroad property has a value well above the bonded debt, the new securities offered in exchange for the assessments and the bonus of common stock can be made very liberal.

The following table illustrates these principles:

ASSESSMENTS IN IMPORTANT REORGANIZATIONS (1910-1919)

Railroad	Old Security Assessed	Amount of Assessment (per cent)	Amount of New Security Given for Assessment (per cent)	Kind of New Security Given for Assessment	Common Stock Bonus (per cent of par of old security)
Reorganizations of Class I					
Pere Marquette..........	Collateral Trust Notes	9¾%	10%	1st Pfd. Stk.	20%
	Debentures	9¾	10	“	20
	1st Pfd.	9¾	10	“	20
	2d Pfd.	9¾	10	“	20
	Common	9¾	10	“	20
St. Louis & San Francisco.	1st Pfd.	50	50	Prior Lien Bonds	100
	2d Pfd.	50	50	“	90
	Common	50	50	“	82
Reorganizations of Class II..					
Missouri Pacific..........	Common	50	50	Gen. Mort. Bonds	100
Rock Island.............	Common	40	40	Pfd. Stk.	100
Wabash.................	Pfd.	30	50	1st Pfd. Stk.	50
	Common	30	50	“	45
Western Maryland (voluntary).................	Pfd.	30	30	1st Pfd.	100 (in 2d Pfd.)
Wheeling & Lake Erie....	Common	30	30	1st Pfd.	100
	1st Pfd.	27	27	Pfd. Stk.	100
	2d Pfd.	27	27	“	90
	Common	27	27	“	87½

Taking these important reorganizations as a whole, it appears that the following conclusions may be drawn:

1. In no case was there a difference in the rate of assessment for different classes of securities in a reorganization.

2. The average rate was approximately 34 per cent, averaging each reorganization as a unit, and a trifle less than 30 per cent, if each assessed security is considered a unit. With the low assessment on the Pere Marquette securities omitted the average was 40 per cent by either way of computing it.

3. In cases where more than one class of security was assessed in the same reorganization, the security given for the assessment was the same for each class assessed.[q]

---

[q] Were we to compare these reorganization assessments with those of the earlier reorganizations, we should find certain striking differences. In the first place, these assessments are larger; more money is now secured at the time of reorganization than was once. Formerly, especially in the reorganizations preceding the panic of 1893, a painstaking effort was always made to apportion the burden of assessments more nearly upon the

Fitting Amount of Assessment to Capacity of Stockholders.—In any reorganization, the practical determination of

---

relative position of the stocks. The common stockholder was usually asked to pay more than the preferred, on the assumption that the burden should rest more heavily on those who would reap the largest benefit from pronounced success. The amount and the character of the assessments in the older reorganizations can well be illustrated from a series of tables of important reorganizations at different periods of financial history. The lists are in no sense exhaustive, although it is believed that the tables cover a fair random selection of important reorganizations.

TABLE 1—EARLY REORGANIZATIONS

Railroad	Date	Old Security Assessed	Amount of Assessment (per cent)	Amount of New Security Given for Assessment (per cent)	Kind of New Security Given for Assessment
New York & Erie (Erie)........	1862	Preferred Common	2½% 2½	None None	None None
Erie Railway.................	1877	Preferred Common	2 4	None None	None None
		or			
		Preferred Common	3 6	3% 6	Income Bonds Income Bonds
Denver & Rio Grande..........	1885	Common	8		
East Tennessee...............	1886	Income Bonds Common	5 6	5 6	1st Pfd. Stock 2d Pfd. Stock
Reading.....................	1886	Income Bonds Preferred Common	2½ 10 10	2½ 10 10	Pfd. Stock " "
Pittsburgh & Western..........	1887	Common	4	8	Pfd. Stock
New York, Chicago & St. Louis..	1887	Preferred Common	10 10	10 10	1st Preferred "
Iowa Central.................	1888	Debentures 1st Preferred 2d Preferred Common	2½ 5 10 15	2½ 5 10 15	Debentures " " "

Average assessment on preferred stocks............... 5 per cent
" " " common stocks............... 7.5 " "
" " " stocks....................... 6.3 " "
Assessments on bonds unusual in reorganizations of Classes I and II.

Meager though these statistical tables may appear, they afford excellent material for exhibiting historical contrasts and the direction of the current in financial opinion concerning reorganization assessment. In the first place, it is unquestionably clear that the tendency has been toward increasing the amount of assessments. Of the eight representative reorganizations prior to the panic of 1893, the average assessment was only 6⅓ per cent—and the assessments levied on the common stocks were conspicuously higher than on the preferred stocks and junior bondholders. A distinct effort was made to apportion the burden in accordance with the priority of the risk. This is readily seen from an inspection of the assessments and the allotment of securities that went with the plan of the reorganization of the East Tennessee, Virginia and Georgia. And in all the reorganizations of the nineties, the average assessment was 11 per cent, and there was less difthe amount of an assessment is a matter of great moment. It must yield all the new money required by the reorganization.

(*Cont'd*)

TABLE 2—IMPORTANT REORGANIZATIONS OF THE MIDDLE NINETIES

Railroad	Old Security Assessed	Amount of Assessment (per cent)	Amount of New Security Given for Assessment (per cent)	Kind of New Security Given for Assessment
Northern Pacific	Preferred Common	10 15		
Richmond Terminal	Common	.10	2½ 7½	Bonds Preferred Stock
Erie (N. Y., L. E. & W.)	Preferred Common	8 12		
Baltimore & Ohio	1st Preferred 2d Preferred Common	2 20 20	2 20 20	Preferred Stock " "
Atchison	Second Mortgage and Income Common	4 10	4 10	Preferred Stock "
Reading	Deferred Income Bonds 1st, 2d, 3d Income Bonds Common	4 20 20		No Special Securities for Assessments
East Tennessee, Virginia & Georgia	1st Preferred	3	.75 17.25	Bonds Preferred Stock
	2d Preferred	6	1.5 4.5	Bonds Preferred Stock
	Common	7.2	1.8 5.4	Bonds Preferred Stock
Union Pacific	Common	15		
Toledo, St. Louis & Kansas City	Preferred Common	20 12	75 25	Preferred Stock "
Wheeling & Lake Erie	Preferred Common	12 9	12 9	2d Preferred "

Average assessment on preferred stocks............ 9 per cent
" " " common stocks.............. 12½ " "
" " " stocks...................... 11 " "
Assessments on bonds unusual in reorganizations of Classes I and II.

ference between the assessments on the different classes of stocks. Finally, among the important reorganizations since 1910 (table given on page 1025) the average assessment was 34 per cent; in fact, in two large and important reorganizations the assessment was 50 per cent. The tendency, too, is to apportion the assessment more evenly among the various junior security holders.

There seems to be little change in regard to the kind of security given in return for assessments. Except in rare, but rather conspicuous, instances, the new corporation gives the full par value of the assessment in a contingent charge security having first claim after the fixed charge bonds.

Yet great care must be taken that the assessment is not so large as to frighten the stockholder into relinquishing his interest. To prevent this, the presumptive value of the new securities must be at least a little greater than the market value of the old stocks, together with the assessment, else the stockholders will voluntarily allow their interest to die. Unless the equity remaining to the junior security holder is considerable, the assessment should be just large enough to induce its payment.[r] If the equity properly belonging to the stockholders is large (the embarrassment being readily attributed to specific and easily remedied causes—reorganizations of Class II, as heretofore defined), a very heavy assessment may be levied on the stockholders, as in the reorganization plans of the Missouri Pacific and Rock Island railroads in which the stockholders were asked to contribute $50 and $40 a share respectively. But great care must be exercised that the assessment is not too large, else litigation will result,[s] or, at best, the stockholders will drop out.

The possibility of a dispute with dissenting stockholders may sometimes be avoided—especially in the case of less serious failures, where large amounts of new money are not essential to a successful reorganization—by giving the common stockholder the option of receiving a small amount of new common

---

[r] An excellent example is offered by the Wabash reorganization plan of April, 1915. Quotations are taken as average for a period of several weeks surrounding the announcement of the plan.

Stock	Market Value of Old Shares	Money Assessment	"Curb" Quotation for the Allotments of First Preferred and Common Stocks Received for the Assessment ($48 for 1st pfd. and $14 for the common)
Preferred..................	1.37	$30	$31.00
Common..................	.75	30	30.30

[s] In the reorganization of the Houston and Texas Central (1888), the stock was assessed over 70 per cent—the highest assessment of which the writer has learned; but serious and long-protracted litigation resulted. The plan was first announced covering exchanges for all the bonds. It was accepted by all the bondholders, who, considering that the new bonds were guaranteed by the Southern Pacific Company, were actually benefited by the reorganization. The first announcement contained no stipulation concerning the stock assessment. Some three months later it was announced to be 40 per cent and still later 73 per cent. Protracted litigation resulted, in the courts of Texas and New York. Ultimately, a compromise was effected with the dissenting stockholders.

stock without the payment of an assessment, or of paying an assessment and getting more liberal amounts of new securities.[t] The apportionment of the assessment between the holders of the common and preferred stocks depends on expediency entirely.[u] Presumably the preferred stockholder is in a

---

[t] Strange to note, this alternative is confined to the two extremes—very mild, usually voluntary, readjustment reorganizations (Class II) and very drastic reorganizations in which all the junior security holders are eliminated (Class I and especially Class III). But there are specific reasons to account for this anomaly.

In the case of the less serious reorganizations, merely readjustments, no foreclosure sale of the property is contemplated. The stockholders cannot, therefore, be forced into paying the assessment. All that can be done is to cajole them into paying it by offering a more liberal amount of new securities than if they refuse. The following examples illustrate this:

Railroad	Old Security Assessed	Amount of Assessment	New Securities
Minneapolis & St. Louis.....	Common	$20	$78 in Common Stock
	"	None	22 " " "
	Preferred	$20	80 " " "
	"	None	70 " " "
Western Maryland.........	Common	30%	45% in valuable coal company stocks
			30 " 1st Preferred
			100 " Common
	Common	None	100 " Common
	Preferred	30%	45 " valuable coal company stocks
			30 " 1st Preferred
			100 " 2d "
	Preferred	None	100 " 2nd Preferred only

At the other extreme, the very drastic reorganizations are usually consummated through foreclosure by the underlying or first lien senior bondholders. To make the reorganization effective, and to reduce the payments to the non-assenting bondholders, most, if not all the bonds must be brought into the reorganization plan. This can be done best by offering an alternative consisting of a liberal participation to those electing to pay an assessment, and a smaller allotment of new securities to those who do not.

The following examples illustrate this. They are all Class III reorganizations. The principles governing the assessments on this class will be discussed presently. All securities junior to the first mortgage bonds were wiped out in every case.

Railroad	Assessment (per cent)	New Securities Given (per cent)		
		1st Lien Security	2d Lien Security	Common Stock
Gulf, Florida & Alabama..............	25%	50%	25%	25%
	None	10	10	10
New Orleans, Texas & Mexico.........	20%	20	50	50
	None	..	40	25
Western Pacific......................	36%	40	55	45
	None	..	12½	50

[u] Daggett is in agreement with this view when he says with reference to the reorganizations since 1908: "In most instances referred to, common and preferred stock fared alike or so nearly alike that the differences were negligible."[62]

---

[62] Daggett, S., "Recent Railroad Failures and Reorganizations," 32 Quart. Jour. Econ., 477 (May, 1918).

stronger position than the common stockholder, but experience has shown that he will be compelled now to bear quite as much of the burden as the common stockholders.[v] Sometimes, although not very often, the assessment on the preferred stock is greater than on the common,[63] on the assumption that the preferred shareholder, having more at stake, will endure more without throwing away his security. In no recent case was the assessment on the preferred stock less than on the common. This principle is unfortunately unjust, but as said before, reorganizations are guided by expediency and not by abstract justice. The bankrupt railroad must have new money.

Assessment in Reorganization of Little Roads.—The discussion of assessments in reorganizations of Class III was purposely omitted from the summaries just given. Each reorganization of this type represents the effort to rehabilitate a small road after a very drastic failure. It is invariably done by the first mortgage bondholders, who alone have any value remaining to their securities. New money must be had and the first mortgage bondholders alone have sufficient interest in the property to be willing to undergo even a slight sacrifice in order to maintain the railroad's existence. Such cases are illustrated by a few reorganizations of Class III (page 1031).

The radical failure of these little roads is apparent from this table, without further explanation. So serious, indeed, was the failure in one case, that the holders of receivers' certifi-

---

[v] The contrast between contemporary and past reorganization theory in this particular is brought out in note (q).

This principle is recognized by practical observers of reorganizations, especially by the professional trader who seeks to profit by the wide fluctuations in security values before and after a reorganization. For example, during the autumn of 1914, when the Pere Marquette was in the hands of receivers, a shrewd trader in Boston offered to give 100 shares of the preferred stock in exchange for 100 shares of common and a bonus of $100 in money. He believed that in any reorganization the common would fare as well as the preferred stock, and he would have $100 to his advantage. Unfortunately, for our sense of abstract justice, he was right.

---

[63] The Toledo, St. Louis and Kansas City reorganization required $20 a share from the preferred stockholders and $12 a share from the common.

RECENT REORGANIZATIONS OF SMALL ROADS (CLASS III)

Railroad	Old Security Assessed	Amount of Assessment (per cent)	Amount of New Security Given for Assessment (per cent)	Kind of New Security Given for Assessment
Cincinnati, Indianapolis & Western	1st Mortgage Bonds	30	30	1st Mortgage Bonds
Detroit, Toledo & Ironton	Receivers' certificates	25	41⅔	Income Bonds
	General Lien Bonds	35	58⅓	"
	Consolidated Bonds	10	16⅔	"
Gulf, Florida & Alabama	1st Mortgage Bonds	25	25	Receivers' certificates
Oklahoma Central	1st Mortgage Bonds	40	40	1st Mortgage Bonds
New Orleans, Texas & Mexico	1st Mortgage Bonds	10	20	1st Mortgage Bonds
Wabash, Pittsburgh Terminal	1st Mortgage Bonds	30	30	Preferred Stock
Western Pacific	1st Mortgage Bonds	36	40	1st Mortgage Bonds

cates were actually assessed.[w] In other cases all the arts of financial persuasion were used to stimulate the interest of the recalcitrant bondholders.[x] They preferred, in many instances, to lose their original investment rather than to meet a heavy assessment and thereby acquire securities of doubtful value in an enterprise which had shown itself to be a failure.[y]

---

[w] Besides the unfortunate Detroit, Toledo and Ironton case, a few other cases exist in which the holders of receivers' certificates were required to undergo a sacrifice. In the reorganization of the Atlanta, Birmingham and Atlantic Railroad in 1914, the holders of $4,476,000 receivers' certificates were required to accept a junior lien fifteen-year income bond. It is interesting to note that in both the Detroit, Toledo and Ironton, and the Atlanta, Birmingham and Atlantic cases the holders of equipment obligations were paid off at par—in the latter case at the time of reorganization, and in the former case through the liquidation of the equipment. Equipment obligations are invariably paid, or left undisturbed at the time of reorganization. For discussion of treatment of equipment obligations, see Book I, Chapter VII.

[x] One unusual and ingenious instance of personal advantage dangled in the face of the bondholders in order to induce them to pay an assessment is afforded by the reorganization of a little road called the Nevada Central in 1888. In the reorganization there were issued no fixed charge bonds, but only First Mortgage 5 per cent Non-Cumulative Income Bonds —due in fifty years. If, however, any bondholder would pay an initial assessment of 12 per cent on the par value of the bonds, a corporation known as the Nevada Company of New Jersey agreed to guarantee the payment of the semi-annual interest during the last forty years of the life of the bond.

[y] A good illustration of these principles is afforded by the reorganization of the Wabash Pittsburgh Terminal Railway. This little road was built as the Pittsburgh link in a prospective Gould transcontinental system

Expediency of Meeting Assessments.—The query may arise as to whether or not it is expedient for the small stockholder, whose shares are quoted at less than $10 to pay an assessment of several times their market value in order to retain an interest in the new corporation. Both Mead and Daggett in their studies of railroad reorganizations have answered the question in the affirmative for the reorganizations of the middle nineties. "The stockholders of the bankrupt roads make no mistake when they rely upon the future to reimburse them for their sacrifices in the present."[66] Daggett has prepared careful statistics showing that for eight reorganizations of the middle nineties, "the amount of the assessment exceeded

---

of railroads. The property of the company represented an actual investment of $46,000,000, of which over $28,000,000 represented the cost of the terminal in Pittsburgh, and a short section of 60 miles of road forming a junction with the Wheeling and Lake Erie Railroad, and some equipment. The remainder represented the cost of investments in coal properties, a belt line, and the controlling interest in the stock of the Wheeling and Lake Erie Railroad. To finance these expenditures, reputable New York banking firms sold $30,000,000 of the First Mortgage 4 per cent Bonds at approximately 91½. They were acquired by investors throughout the East; in fact, trust funds such as those of educational institutions were placed in them. Some $20,000,000 Second Mortgage Bonds were also sold although they were of an admittedly speculative character. In 1907, with the collapse of the Gould aspirations for a transcontinental railroad system, the Wabash Pittsburgh Terminal Railway passed into the hands of receivers. For upwards of eight years it was operated in an extremely inefficient manner by receivers. The gross and net earnings fell off each succeeding year; the First Mortgage Bonds declined to a value of $1—$10 a $1,000 bond; and the Second Mortgage Bonds became practically worthless—$1.25 for a $1,000 bond. Finally, in 1915, a plan of reorganization was announced involving the assessment of $300 on the First Mortgage Bonds, the holders to receive only non-cumulative preferred stock of a new company in exchange for their assessment. The Second Mortgage Bonds were entirely eliminated as well as the stock. One firm of Wall Street brokers wrote to their customers: "If our surmise proves to be true, it will not pay the bondholders to throw good money after bad. Better let the property go on the auction block for what it will bring as junk and real estate. If this is done, it may happen that the bondholders will get more than two cents on the dollar."[64] A very large proportion of the bondholders refused to pay the assessment, preferring to see the extinction of their original investment. When this plan was announced, an editorial writer of *The New York Times Annalist* remarked: "The experience of these particular bondholders goes to show how very little indeed there is in a name."[65]

---

[64] Schmidt and Gallatin, *Weekly Review* (July 2, 1915).

[65] Annalist 3 (July 5, 1915).

[66] Mead, "The Reorganization of Railroads," 17 An. Am. Ac. Pol. Soc. Sci. 220 (1901).

the sum for which the common shareholders could have sold their stock one month after the publication of the plan. In other words, the assessments wiped out the whole value remaining to common stockholders and exacted an additional contribution as the price of participation in any future prosperity. It is needless to add that quotations today are many times the amount of the assessments. The increase in value has occurred alike for common and preferred stock, even in times of severe depression. On the whole, it abundantly justified the payments which stockholders were asked to make." [67] This was written in 1908, before the long period of the steady decline of railway credit that ended in the assumption of federal control January 1, 1918. In the period from 1908 to 1918 the truth of this quotation has certainly lost much of its force, and there are many instances of railway reorganizations before 1900 in which those who paid their assessments lost the interest and in many cases the principal of their contribution. On the other hand the gradual but marked recovery of railway credit, from 1920 on, has resulted in giving substantial values to the securities given in return for assessments in all the more important railroad reorganizations down to the present time.

This indicates the difficulty in making generalizations based on historical evidence. Both Daggett and Mead were reviewing a prosperous period of industrial history. One must recognize that the decade following the depression of 1893-1897 was one of remarkable expansion, in which the railroads of the country had their full share, so that all these reorganizations were profitable to the security holders during the succeeding decade. Had, however, the reorganizations occurred just before a period of depression rather than a period of marked economic prosperity, exactly the opposite result would have occurred. All things considered, it is probably distinctly unwise, from the selfish point of view, for the shareholder in a bankrupt railroad to pay an assessment of more than $5 or

---

[67] Daggett, S., Railroad Reorganization, 354 (1908).

$10. The chances are very much in favor of the new stock selling for less than the assessment during the period following the reorganization while the road is in an enfeebled condition. If, therefore, a stockholder has confidence in the future prosperity of the company he will probably find it to his advantage, if the assessment is over $10 a share, to surrender his old stock and buy the new stock on the open market soon after the reorganization has been consummated. The realization of this fact has acted as a positive influence in holding down assessments on stocks, even though strict economic justice would require a more liberal contribution from the stockholders.[z]

Reorganization Underwriting Syndicate.—Whether obtained through the assessments on the old security holders or through the sale of new securities to the public, it is necessary for responsible persons to insure that the new railroad corporation receives the money expected. This is done by the reorganization underwriting syndicate, an important and necessary corollary of practically every reorganization plan.[68] Formerly, the "reorganization trustees" were clothed by stockholders, creditors, and the courts, with ample power to superintend the reorganization and secure for the corporation sufficient money. But as one of the two ultimate purposes of every reorganization is to obtain liquid capital for the new corporation, no reorganization can be carried through, no matter how just, unless sources of new money or new credit are certain. Even though an assessment is imposed on the old stockholders, there is no necessity that they pay the amount; in fact, it is sometimes quite uncertain whether or not any large proportion of the stockholders of a road whose shares are selling for less than $10 a share will pay an amount greater than the market value of their shares. Although the acceptance of a reorganization plan by a committee of large stockholders may give an assurance that a goodly proportion of the assessments will be paid, the attitude of the rank and file of the stockholders will remain unknown until the plan of reorganization is actually put into execution. Meanwhile, the corporation must be assured that in any event the new money will be available.

---

[z] That this view is shared by shrewd stock market observers is indicated by the profusion of unasked advice that stock exchange houses offer at the time of reorganization. For example, at the time of the last Wabash reorganization, involving an assessment of $30 on both classes of stock, a New York stock exchange house in its weekly letter, after describing the main features of the plan, commented significantly: "At the present time the old Wabash common and preferred stocks are selling at higher prices than are warranted by the prices of the new securities. To those holders of the old stocks who contemplate paying their assessment, we suggest that they sell their old securities and buy the new, when issued, thus saving the trouble of subscribing, as well as saving a small amount of money." Schmidt and Gallatin, *Weekly Review,* May 13, 1915. It might be contended that any such opinion as that expressed above is a conscienceless view and justifies the tactics of the curb speculator. But it must be noted that any stockholder who pays an assessment on railroad stock representing no tangible equity is speculating in the most arrant fashion. His act may be looked upon as socially beneficial because it makes possible the rehabilitation of the railroad from which the public will derive benefit. Nevertheless his investment of new money is based on presumptions of future prosperity, unsupported by past events and justified only by a kind of optimism—akin to patriotism in its blind confidence in the resilience and continued strength of our large public utility enterprises.

[68] For detailed discussion of underwriting syndicates in general, see Book II, Chapter VIII.

And, further, the willingness of the members of the syndicate—usually represented by prominent bankers—to furnish money to the new corporation gives a sentimental support to the justice of the reorganization much greater than the exhortations of the reorganization committee.[aa] It is this moral support of the reorganization, often quite as vital as the financial support, that justifies the expense of the syndicate and the general importance assigned to it. And in the matter of financial support, a syndicate may guarantee the payment of the assessments by the security holders, and it may purchase outright an issue of new securities to be sold to public investors in the open investment market.[69] So important, indeed, are these under-

---

[aa] It was the success of the late J. P. Morgan in formulating reorganization plans which gradually gave him such a position, during the railway readjustments of the nineties, that his name in connection with any reorganization carried more weight than that of any other banker. As a result, almost all the important railroad reorganization syndicates, with the exception of the Atchison and the Union Pacific, were managed or dominated by the banking house under his control.

---

[69] The various purposes of an underwriting syndicate are well stated in the reorganization plan of the Baltimore and Ohio Railroad. See note (gg).

writing syndicates that almost without a single exception, every railroad reorganization of even medium importance, consummated since 1890, has been supported by an underwriting syndicate, or else some form of syndicate which assumes at least some of the functions of an underwriting syndicate.

Frequently, also, the support of the credit of the new company in the stock exchanges and among the "curb" brokers and "specialty" houses is a matter of great importance. It takes tangible form in the efforts of the underwriters to support the market for the reorganized company's new securities. When a security has any value, trading in it is inevitable. Once the bonds of the new company have been issued, a market will be formed for them, somehow, by those who are forced by circumstances to realize on them before the road has begun to reflect the results of its rehabilitation. The syndicate cannot let the bonds go begging on the market among the curb brokers. Such a course would do lasting injury to the credit of the road and themselves. They must be ready to "hold the basket."

Services of Syndicates.—A syndicate of some sort guarantees the payment of the assessments levied on security holders in practically every reorganization[bb] and unless the terms offered the stockholders are very onerous, bankers can always be found to underwrite these assessments for a reasonable commission. The syndicate agreement takes the form of an obligation on the part of the incorporators or others responsible for the new railroad to pay the syndicate either a net commission on the entire aggregate assessment or else a round sum, in the form of a fee. In consideration of this commission or fee, the syndicate contracts to assume the place of any assessed security holder who refuses to pay his assessment. This implies that the syndicate will pay the assessment of the defaulting security holder, and take over the securities of the new corporation allotted to him. As a result of the foreclosure sale, the rights and interest of the defaulting security holder in the new corporation are extinguished.

[bb] Of course there are exceptions. The securities given in the Pere Marquette reorganization, in return for assessments, were thought to be so valuable that the reorganization managers believed that they could sell the securities of a defaulting bond- or stockholder for the amount of the assessment. Hence they did not feel justified in paying a syndicate a commission for underwriting the assessments. But they did pay a syndicate a "commission" for purchasing some of the bonds.

It is important to observe that it is often necessary to offer the underwriting or purchasing syndicate almost as liberal terms on which to purchase the new securities, as are offered the holders of the old stocks or bonds. This is conspicuously true of reorganizations of the small roads of the third class. In the reorganization of the Western Pacific the old second mortgage bonds and the common stock were eliminated, so the entire brunt of the reorganization fell on the shoulders of the old first mortgage bondholders. They were required to buy new first mortgage bonds at 90 per cent of their par value. The underwriting—called purchasing syndicate—also bought the bonds at 90 per cent. But the old bondholders received approximately 153 per cent of preferred and 264 per cent of common stock as bonus; whereas the syndicate received only 55 per cent in preferred and 14 per cent in common as bonus. This would appear to be liberal treatment to the old bondholders, but a little investigation would show that it was not. Both stocks had a narrow market and little value.

The ease with which a reorganization committee may secure the underwriting of its plan, and the amount of commission or fees demanded from the new corporation will depend on the amount of risk involved. But, unlike other underwriting syndicates where the payment of money is insured, the syndicate managers can obtain a fairly accurate idea of the extent of the stockholders' probable payments. If they feel that in any plan suggested to them a very large proportion of the old security holders will fail to meet the assessments, the syndicate managers will insist that more liberal terms be offered. If the failure is severe, the old stocks commanding only a nominal market value, and if considerable assessments have to be levied on the old security holders, it may happen that no bankers can be found who will consent to arrange an underwriting syndicate. In such cases, junior bondholders are forced into assuming the status of an underwriting syndicate in that their participation in the reorganization is made conditional upon their willingness to guarantee the stockholders' assessments. Under these circumstances, the junior bondholders have divided among them the unpaid stock assessments and they take over, in corresponding amounts, the new securities to which the defaulting stockholders would have been entitled.[cc]

The other important service of an underwriting syndicate at the time of reorganization is the direct purchase of a considerable block of securities of the new corporation. Ordinarily, these securities occupy the status of a general mortgage bond, senior to all the new securities issued at the time of reorganization, but junior to the first, prior lien, and divisional bonds left undisturbed by the reorganization.[dd] In fact it may even be said that there has been no large and comprehensive railroad reorganization during the last decade which has not involved the purchase of new securities by a syndicate of bankers as well as the guarantee of the payment of the stockholders' assessments.[ee] These purchases are ordinarily made by the same syndicate that guarantees the payment of the stockholders' assessments,[ff] the two transactions being regarded as part of one agreement.[gg] By this arrangement some new money is obtained from independent outside investors.

[cc] Such a case is excellently illustrated by the Wabash reorganization of 1915. There were outstanding a little over $40,000,000 junior bonds known as "first and refunding fours." These were to be refunded into second preferred stock at a ratio of 120 per cent. But at the same time, these bondholders were required to assume the payment of the assessments for the delinquent common or preferred stockholders. If all the stockholders paid their assessments, the bondholders would not be assessed; but if none of the stockholders paid, participation by the bondholders involved a maximum liability of $682.76 for each $1,000 bond. These bonds were then selling at $200 in the open market.

[dd] Such statements are, assuredly, subject to many exceptions. Sometimes the underwriting syndicate will buy, for money, even the common stock of the new railroad. For illustration, in the very drastic reorganization of the Atlanta, Birmingham and Atlantic in 1916 (plan dated December 15, 1915), the entire common stock was wiped out, and no attempt was made to levy any assessments on any securities. New money was obtained by the sale to a syndicate of the common stock of the new corporation at $12 a share, subject to a commission of 6 per cent in cash. This stock was then offered to the old first mortgage bondholders at that price. In case a bondholder refused to "purchase" the stock, his interest also was extinguished.

Compensation of Syndicates.—The compensation of the syndicate and its managers may consist of at least three different emoluments. It will be able to buy the new first or general mortgage bonds for less than the true market value, usually a discount of about 5 per cent. It will receive in addition a reasonable rate of interest and a commission on the actual money advanced during the reorganization.[hh] It will also

---

[ee] The combination of the two functions was very common in the middle nineties, but not quite to the extent that it is now. Of fourteen typical reorganizations studied by Daggett "four provided cash by assessment, three by the issue of securities and five by a combination of both methods."[70]

[ff] Cases are by no means uncommon in which a banker or syndicate guarantees the stockholders' assessments and an entirely different one buys a block of new first or general mortgage bonds. Such cases, however, inevitably lead to one banker or syndicate taking the lead, and analysis of the case will usually develop the fact that one of the bankers or syndicates is acting under the direction of the other.

[gg] The Baltimore and Ohio Railroad reorganization of 1899 had a composite agreement of this character illustrative of the somewhat elaborate arrangements entered into between the general reorganization committee, acting for the new corporation, and the syndicate of bankers. The syndicate agreed:

1. To guarantee subscription to $6,975,000 new preferred stock and $30,250,000 new common stock, to be offered to the old first preferred, second preferred and common stockholders.
2. To purchase $9,000,000 Prior Lien 3½s, due 1925; $12,450,000 First (general) Mortgage 4s, due 1948; $16,450,000 4 per cent preferred stock.
3. "To protect the new company in the ownership and possession" of the property covered by its mortgages, by acquiring the old bonds, at par, from those who would not care to refund them into new bonds. The syndicate agreed to exchange such acquired old bonds for the corresponding amounts of new bonds specified in the plan.
4. To purchase $3,800,000 par value of Western Union Telegraph Company stock at $90 a share. See 66 Chron. 1235 (1898); also Daggett, S., Railroad Reorganization, 24 and 346 (1908).

[hh] Sometimes—and the practice is growing quite common—the underwriting syndicate arranges with another syndicate of bankers to advance the necessary money. In the St Louis and San Francisco reorganization of 1916, the ordinary underwriting syndicate, called in this case the Purchase Syndicate because it purchased outright a large block of prior lien

---

[70] Daggett, S., Railroad Reorganization, 351 (1908).

receive a considerable bonus in the form of new preferred[ii] or common stock,[jj] or both. In addition, the rights of the non-assenting stockholders, which revert to the syndicate, may be looked upon as a fourth kind of compensation.[kk] In general, the net amount of the special discount on the bonds and the commission on the money advanced may be looked upon as approximately equal to the direct and indirect expenses incurred by the syndicate. A profit can arise only through the development of a substantial value for the stocks received as a bonus. This can occur only if the reorganized company is a success. Obviously, therefore, the members of the underwriting syndicate must assume an active interest and directly co-operate in the future welfare of the road. This interest must, for selfish

---

bonds, made arrangements with the Loan Syndicate to carry its bonds. The compensation of the former was 4 per cent of the par value of the bonds, and of the latter approximately 2¾ per cent, both commissions being paid out of the assessments on the stockholders.[71]

[ii] In the Pere Marquette reorganization of 1917 the purchase syndicate received a commission of 5 per cent on its entire obligation, out of which it compensated the Guaranty Trust Company of New York, which formed a loan syndicate to carry the entire obligation of the purchase syndicate on a 20 per cent margin. The use of two syndicates, one to carry the risk and the other to advance the capital, seems to be growing in frequency.

The syndicate which stood back of the Union Pacific reorganization received for its services $5,000,000 in preferred stock (valued at about 60 per cent) and the managing bankers $1,000,000.[72] Such allotments of preferred stock are rare. Distinctly, the commonest form of bonus is a liberal issue of common stock alone without any preferred stock or bonds.

[jj] J. P. Morgan's banking house received $750,000 in common stock of the new Southern Railroad for the most difficult of Mr. Morgan's reorganizations. The stock had, at the time, little value.

The amount of commission exacted by bankers for underwriting a reorganization assessment will not be always consonant with the risk involved. If the bankers propose to "manage" the property after the reorganization, their charges are apt to be very modest. Thus the bankers who underwrote the final, very drastic reorganization plan of the unfortunate Atlanta, Birmingham and Atlantic of December 15, 1915, demanded less than other bankers had asked for underwriting the previous far less drastic reorganization plan of 1914.

[kk] In rare instances, the terms offered to purchase outright new securities are less favorable than those offered the old security holders directly. Thus, in the small, but notably unfortunate, Gulf, Florida and Alabama case, the old bondholders were allowed to purchase, for $250 in money, $500 in prior lien bonds and $250 in second lien and common stock; whereas the syndicate members were given, for the same money price, $400 in the prior lien bonds and $150 in each of the junior securities.

---

[71] Abstract of the announcement of the purchase syndicate given in Lyon, W. H., Corporation Finance, 267 (1916).

[72] Daggett, S., Railroad Reorganization, 253 (1908).

reasons alone, continue long after the reorganization plan has been consummated. Taking into account the risks both of money and business reputation which a reorganization syndicate assumes, the compensations given of late years are not exorbitant. They are, comparatively speaking, less than what affiliated bankers demand for the sale of the securities of solvent corporations, when the chance of loss is negligible; they are less, comparatively, than what receivers are accustomed to demand for purely nominal responsibilities involving no permanent risks.[73]

---

[73] For other discussions of the reorganization syndicate see Joline, A. H., Reorganizations of Corporations, 56; Daggett, S., Railroad Reorganization, 345 (1908); Mead, E. S., "The Reorganization of Railroads," 17 An. Am. Ac. Pol. Soc. Sci. 205 (1901).

CHAPTER VI

THE REDUCTION IN FIXED CHARGES IN CONTEMPORARY RAILROAD REORGANIZATIONS

The means for obtaining new money provided in the plan of reorganization, solves only a part of the financial difficulties of the railway. Although some of the less serious railroad failures of Class II (described at the close of Book V, Chapter IV) might be overcome by the addition of new capital, the vast majority of railroad failures, including all those of Classes I and III, require in addition that the previous load of fixed charges be lightened. A reduction in fixed charges represents that necessary part of every railroad reorganization which goes beyond the amelioration of the temporary distress; it insures continued solvency long after the road has passed through the period of its rehabilitation. This reduction is accomplished most easily by reducing either the interest or the principal, or both, of the road's bonded debt. As with the problem of obtaining new money, the problem of reducing fixed charges is best presented in the comprehensive reorganizations of Class I, and the principles observed to apply to this class may then be applied, in modified form, to the more superficial reorganizations of Class II, and to the drastic reorganizations of small roads of Class III.

Considerations Determining Treatment of Bond Issues.—It should be observed, at the outset of any discussion of the treatment of various types of securities at the time of reorganization, that a divergence of interests immediately arises. In this discussion, and in all that follows, the point of view is that of the corporation. In the end, and in the widest sense, the point of view of the officers of the corporation and that of the owners of its securities is the same. But at the time of reorganization there is, as indicated in the treatment of the procedure of reorganization, the inevitable conflict of sets of interests. The most conspicuous conflict is that of the corporation represented by its old stockholders and the bondholders who have some value in the property, but whose value is likely to be jeopardized by concessions made to other security holders.

It was pointed out in the first part of the chapter on reorganization procedure that various considerations affected the adjustment of the interests involved in a reorganization, and perhaps it might be pertinent at this point to indicate the considerations that affect the interests of the bondholders as such, without reference to the other security holders or the permanent welfare of the corporation.

There are five fundamental considerations which determine the treatment of any given issue of bonds and it is of value perhaps, to summarize these at a single point of our narrative. The first two are concerned with the nature of the corporation without reference to the bond issues involved in the reorganization. Two other sets of conditions are concerned with the economic and strategic position of the specific issue of bonds, in relation to the other obligations and liabilities dealt with in the reorganization. The fifth set of conditions are the legal privileges, restrictions, and limitations with which any bond issue is clothed.

The first set of conditions is concerned with the public attitude toward the necessity and social importance of the business conducted by the corporation of which the bonds are an obligation. At the one end of the series is a privately owned water company, the business of which is so essential to the life of the community which it serves that public officials exercise a strict supervision over the conduct of its business. Of slightly less public importance, but nevertheless of inestimable economic importance, are the railways. At the other end of the series are the small locally owned manufacturing businesses engaged in the production of unimportant luxuries, of which the supply is always ample. The attitude of the public, as crystallized in judicial precedents and statutory law, toward the public character of a business, has much to do with the treatment of the corporation's bonds at the time of reorganization. If the business of a bankrupt corporation is invested with a public character, the courts will permit a great variety of past and present debts to be superimposed above the liens of all the bonds—even the underlying first mortgage bonds—provided such a course is necessary to keep the public utility enterprise in actual operation. On the other hand, a bankrupt business not invested with a public character will be liquidated by the courts for the benefit of the creditors, and a general creditor can obtain, only in extreme provocation, a claim on the corporate assets sufficiently strong to emasculate the security of the mortgage bondholders.

The second set of conditions is concerned with the specific character of the business conducted by the bankrupt corporation of which the bonds are a liability. By that, one means the kind of commodity which it furnishes, the market it supplies, the liquid or fixed character of its assets, the rapidity with which its capital is turned over, and its natural capacity for borrowing capital. There is one type of business requiring a large amount of fixed capital, of which a power dam is an illustration, which has no current quick assets that can be sold for the benefit of creditors. It requires little or no working capital and, therefore, once it is in operation, it requires no loans from the banks. It supplies a relatively stable market; the services it sells cannot be "trade-marked" and little business skill is required for its administration. At the other extreme is the type of business which requires little fixed capital—like a tannery—where the current assets constitute about all there is to the value of the corporation's property. The capital is "turned over" rapidly; the volume of purchases and sales fluctuates rapidly, so that large amounts of bank credit must be available at certain times. It produces a commodity for a highly competitive market, and great skill is required for the administration of the business. In the reorganization of the former type of business, general as well as underlying bonds may be left undisturbed, because the reorganized corporation will have an assured and relatively constant earning power, and no need would arise for securing bank loans to carry, temporarily, an unusually large volume of business. In the reorganization of the second type, the old bonds must be scaled down to the lowest possible point, and in reorganization plans of markedly good technique all bonds of the bankrupt corporation are converted into stock. The plan must safeguard, above all else, the general borrowing credit of the reorganized corporation, and preserve the organization, the good-will, and the trade standing of the business. A bond, even a mortgage bond, of such a business is an empty symbol, unless these intangible elements are maintained.

The third set of conditions pertains to the earning capacity of the particular property which secures one bond issue—in contrast to another bond issue of the same bankrupt corporation. In the reorganization of a large railway system, a large local utility, an industrial "trust" of hybrid origin, there are usually several separate issues of bonds. One issue is secured by a mortgage on one piece of property, another issue by a mortgage on an entirely different piece of property. And the two pieces of property have probably contributed differently to the earning capacity of the bankrupt corporation. Obviously the bonds secured by the more lucrative property must be treated more liberally than those secured by property having a less inherent earning capacity. Obviously no bondholders can be asked, under any circumstances, to accept new securities in a reorganized company which will yield less income than the separate earning capacity of the property securing the bonds; and, equally self-evident, bondholders whose only security is property having little or no independent earning capacity may be justly asked to endure any sacrifice in income short of the complete extinction of their investment.

The fourth set of conditions has to do, again, with the property securing ~~an issue of bonds—the strategic significance~~ (rather than the explicit earning capacity) of the property. For it is true that in any complex financial structure the property securing one bond issue is more essential to the operation of the business as a whole than the property securing another. Obviously the former issue must be treated with conspicuously greater liberality than the latter. This distinction is of great importance in adjusting the relative interests of different small, separately secured bond issues in every complex reorganization, but it is especially important in the reorganizations of large railway systems. For, obviously, the holders of bonds secured by a mortgage on the main trunk stem of a railway system must be treated with the utmost liberality. They must be treated in actual practice with much greater liberality than the holders of bonds secured by a mortgage on a branch line, the traffic on which is important but not absolutely essential to the integrity of the reorganized property.

The fifth set of conditions to be considered is legal. The futility of reliance, on the part of the bondholder, solely upon the legal privileges of his bond issue has been constantly before us in this study of reorganizations. Superficially the legal form of a bond issue may seem to present conditions of great importance in determining its status with reference to other bond issues. In reality, the legal rights and privileges with which the bond issue is protected are not of great importance compared with the other considerations already outlined. The legal consideration which is, perhaps, of the most significance in determining the status of the bond issue is the question of the general machinery adopted in putting the reorganization into effect. If the reorganization follows a foreclosure of one of the bond issues and a judicial sale of the assets of the corporation, severe pressure can be brought on all the junior bondholders. If, on the other hand, no foreclosure sale is ordered by the court, the plan of reorganization must be carried out with the consent of all the bondholders, and every bond issue must be treated, therefore, with great leniency—often irrespective of the equities of the situation.[1]

Classes of Securities to be Dealt With.—At the time of the serious failure of a great railroad system with an intricate financial structure, it is found that there exist at least three classes of bonds or fixed charge securities, one or more classes of contingent charge securities, and the common stock. The three classes of bonds are of three different levels. The first, both in point of time and priority of security, includes the old underlying main line and divisional bond issues created during the period of construction and still secured by first closed mortgages on most, if not all, of the important lines of the railway. The second level consists of an issue of general first mortgage bonds, and possibly issues of second and third mortgage bonds. These bonds embrace the entire railway system. They represent liens subsequent to the bond issues of the first level, when such exist, and a first lien on those parts of the system not covered by underlying liens. These issues were created after the railway system had taken form—during the period of development, in contradistinction to the previous period of construction. The third level represents the numerous junior issues of general, consolidated, or refunding mortgage bonds, debentures and short-term secured and unsecured notes, issued at subsequent times, usually at a considerable discount, or at a high rate of interest. Owing to the differences in lien, these three kinds of bonds are considered separately in effecting a reduction in fixed charges.

Determining Position of Old Underlying Issues.—The first step in the problem of reduction of the interest charges on the bonded debt is the determination of the position of the old underlying or divisional mortgages. Invariably, unless the railway system has been reorganized before, and even then unless the previous reorganization has penetrated to the marrow, there will be found a host of underlying bonds, on branch lines and subsidiary roads, that have been allowed to continue in force because there seemed nothing else to do. These carry, ordinarily, high rates of interest; they mature at various dates and are secured by dissociated and often unrelated sections of line.

---

[1] These matters were outlined in more detail in An. Am. Ac. Pol. Soc. Sci. 23 (March, 1920).

In a few of the earlier railroad reorganizations a temporary reduction in the charges on these underlying bonds was accomplished by requiring the holders either to refund or else surrender the coupons covering a definite period of years. In the Chesapeake and Ohio Railroad reorganization of 1878 the First Mortgage bondholders funded the coupons of the three following years into preferred stock and the Second Mortgage bondholders the coupons of the next six years. A similar plan was followed in the Erie reorganization of the same year. When a railroad found itself in financial difficulties during the period from the panic of 1873 down to that of 1893, the funding of coupons was the first expedient suggested and usually followed. Thus the old East Tennessee, Virginia and Georgia began its career of manipulation and misfortune in 1884 by the funding of coupons.[2]

The funding of coupons, however, no matter under what conditions accomplished effected merely a temporary relief. The remedy was based on the presumption that earnings would improve in a short time. After numerous experiences in which the earnings did not immediately improve this merely temporary expedient was abandoned as a guiding principle of railroad reorganization procedure. It became firmly recognized that permanent strength of the reorganized property could be obtained only by permanent changes in the financial structure.

Refunding of Underlying Issues.—Since the reorganization of the Wabash system in the late eighties, historically the first of the great comprehensive railroad reorganizations of

---

[2] 40 Chron. 29.

Class I,[3] it has become the established practice to refund most, if not all, of the underlying and divisional issues into a single issue of first mortgage long-time bonds, bearing a low rate of interest and smaller, in principal, than the old underlying and divisional issues. It substitutes a single, large bond issue for a heterogeneous mass of small issues; it simplifies the railroad's financial structure. It probably reduces the burden of fixed charges, and it may even reduce the principal of the outstanding bonded debt. From every point of view, therefore, this substitution is now[a] regarded in the light of an advantage to old bondholders and to the railroad.

This idea was very well expressed in the circular of the Northern Pacific Reorganization Committee of March 16, 1896, advising the holders of the old General Mortgage 6 per cent Bonds of 1921 covering part of the system, to exchange them for 135 per cent of new Prior Lien 4 per cent Bonds of 1997 covering the entire system. "It is manifestly to the benefit of the holders of the General First Mortgage Bonds to secure an investment of longer continuance, and it is also to the benefit of all subsequent securities to diminish this unnecessarily large burden of annual fixed charges. . . . The advantage is obvious of a mortgage resting upon a complete and entire system, including main line and all branches brought into the new company, together with terminals, land grants and

---

[a] In a few rare instances the old issues are continued, with a direct reduction in the interest rate. This is practicable only where there are one or two bond issues and a general simplification of the financial structure is not required. Thus in the reorganization of the Colorado Midland in 1897, the interest rate on the underlying bonds was reduced from 6 to 4 per cent.

This has not always been true. Prior to 1887 there were comparatively few comprehensive refunding operations, and these few were invariably carried on under coercion. The editor of *The Commercial and Financial Chronicle* had this to say as late as 1885, commenting on the Denver and Rio Grande plan of reorganization, "It is most important that the idea should get abroad and be established beyond a question that a small first mortgage on a large railroad property will never be disturbed, and that the priority and sanctity of its lien will in no way be interfered with, whatever may happen to the junior securities."[4]

---

[3] For the outlines of this important reorganization, see Book V, Chapter IV, page 985.

[4] 40 Chron. 480 (April 18, 1885).

equipment, and having over $200,000,000 of bond and share capital behind it, securing a gold bond running for one hundred years, as compared with a bond at all times liable to compulsory retirement and secured by only part of the system." [5]

The difficulty involved in securing the refunding of these issues lies in establishing a fair equivalence between the old security and the new, and then in the very great practical difficulty of making the holders of these bonds consent to the exchange. No reorganization can succeed which is opposed by all concerned. No reorganization can succeed which is fundamentally unjust. Much care must therefore be exercised in arranging a fair exchange for the holders of the old bonds.

Basis of Exchange of Securities—Economic.—In determining the relative value of these old underlying and divisional bonds, reorganization managers are concerned with the fundamental property values behind the bonds—not with the legal status or legal phraseology of the bonds and their mortgage. The basis of exchange is economic and not legal. In assessing their economic value, two considerations are of primary importance: the essential earning capacity and the strategic position of the property covered by the bonds. In other words: What does the security of the bonds earn? How important to the reorganized road is the property covered by them?

The first question can be answered only in terms of past experience, and it is frequently important to segregate individual station freight statistics and passenger receipts according to the lines covered by separate mortgages in order to ascertain the immediate earning capacity of the lines covered by those liens. This is particularly important in the case of branch and subordinate divisional lines, because the quantity and relative significance of the traffic originating on each line can be specifically determined; but it is of no importance in determining the earning power of main lines, owing to the impossibility of allocating the receipts and costs of operation of different types of freight on the main lines. The other consideration, that of strategic importance, can be determined roughly by an inspection of the railway map. The main lines have the greatest strategic importance and must be preserved at all hazards. Those branch lines which run into isolated unproductive territory have least. If the line would be of considerable importance to a competing railway system, the reorganization managers must face the possibility that, in case the bonds are disturbed, the bondholders may bid in the property and sell it to the competing system. In other words, the strategic importance of the line to the reorganized railway is affected by the answer to the question: What would, or could, the bondholders do if they assumed control of the property? If the line could exist independently, the bondholders must be treated liberally; if the line would be of no value independent of the reorganized company, then the bondholders can be counted upon to accept any reasonable offer made to them.

---

[5] Plan given at length in 62 Chron. 550 (1896).

Three Classes of Underlying Bonds.—Generally speaking, there are three classes of the underlying bonds, arranged according to the fundamental earning capacity and strategic importance of the lines by which they are secured. There are first the old underlying first mortgage bonds on the main line. These are of primary importance to the system; in fact, without these lines there is no railway system at all, merely unconnected branches. Not only does traffic arise on these main lines, but over them moves the branch line business. The second class includes the later mortgages on the main line divisions and the liens on important branch lines possessing an assured independent earning capacity and considerable, though not essential, importance to the system as a whole. The third class includes the first and subsequent mortgage bonds on unimportant branch lines. Such lines will have failed to earn their fixed charges, and are, from any point of view, of little value to the system as a whole.

Paying Off Underlying Bondholders.—In arranging a proper basis of exchange between the old underlying bonds and the new securities to be given in order to refund them, great care must be exercised that these differences are recognized. In each case the offer of exchange must be sufficiently liberal to guard against the need for large amounts of money to settle with the non-assenting bondholders, yet not so liberal as to defeat the essential end of the reorganization by over-burdening the new company with fixed charges. Each class and each issue must be evaluated by itself.

In order to bring the property covered by underlying bonds completely under the cover of a new general first mortgage bond issue, when some of the underlying bondholders refuse to come into the reorganization, it is necessary to foreclose the mortgage. The recalcitrant bondholders are then paid off their proportion of the price realized at the foreclosure sale. It is invariably less than par. In the last Pere Marquette reorganization there were 10 underlying and divisional issues. All the bonds of 2 issues were exchanged, the trustees being able tc cancel the issues without foreclosure. Less than 3 per cent of all the underlying and divisional bonds were undeposited and had to be paid in money.[6] In rare cases, especially if there exist one or two small, main line issues, these underlying bonds are paid off in money.

Thus in the thoroughly comprehensive reorganization of the Northern Pacific Railroad in 1896 two small main line issues were at first undisturbed and then paid off in money. Together they represented about $2,000,000—$1,834,500 Missouri Division 6s (1879-1919) and $369,000 Pend d'Oreille 6s (1879-1919)—whereas the property involved in the reorganization exceeded $200,000,000. Ordinarily these small, underlying, high interest-rate bonds are worth well above par; and reorganization managers have, in the past, been accused of allowing a default in interest so as to force holders to accept payment of their bonds at par. This particular procedure was very vigorously condemned by the editor of *The Commercial and Financial Chronicle* in 1896, when many of the comprehensive reorganizations of the middle nineties were being discussed. "When," in the words of this financial observer, "these old underlying mortgages bear a high rate of interest and have also a good many years to run to maturity, there is of course an obvious advantage to a company in paying them off and replacing them with obligations bearing a lower rate of interest. In such a case it is difficult to resist the conclusion that the default has been made with design or is being purposely continued in order to force the holders to consent to the paying off of their bonds or to make concessions which it is not needful or right that they should make."[7]

---

[6] For rates of settlement in this particular case, see Book V, Chapter III, note (xx).

Leaving Underlying Issues Undisturbed.—But specific treatment of every underlying issue is not always necessary. If one or two of these small issues bear low interest rates, or mature shortly, they are allowed to remain unaffected by the reorganization—"undisturbed," as the phrase is. Various reasons exist which justify the continuation, undisturbed, of a few of the old issues. Sometimes these issues are so small that it seems inexpedient and too expensive to induce the holders to exchange them. Thus in the comprehensive reorganization of the Erie in 1895 none of the old underlying issues of the original New York and Erie Railroad was disturbed. Many of these bonds were held in England, many were in the treasuries of insurance companies. All of them commanded a high credit as investment securities, so that it would have been very difficult, if not impossible, to have induced their holders to have exchanged these underlying bonds for any of the second-rate securities of the new Erie Railroad, created at the reorganization. Similarly, in the last reorganization of the St. Louis and San Francisco Railroad in 1916, an issue of $9,000,000 underlying First Mortgage Bonds of the original St. Louis and

---

[7] 62 Chron. 525 (March 21, 1896).

San Francisco Railway, issued in 1881 and due in 1931, was not disturbed. The bonds had not been disturbed in the previous comprehensive reorganization of the St. Louis and San Francisco Railway in 1896.

Sometimes the underlying issues are destined to mature in a few years, and the saving in interest, through refunding them, will not compensate for the trouble and expense involved. In the numerous comprehensive reorganizations of the middle nineties, these underlying bonds were, for the most part, refunded.[b]

Simplifying Financial Structure.—A comprehensive reorganization in which some of the old underlying bonds remain undisturbed may be easier or cheaper to accomplish than one in which all the old liens are refunded but the financial structure of the reorganized road remains more complex. Ordinarily, however, even when the issue is of the highest grade of main underlying bonds, the reorganization managers will refund them into a new first general mortgage by offering their holders special inducements.[c] If the new general first mortgage bond issue carries a lower rate of interest than these old underlying issues, as is very probably the case, the bondholder must be offered an increase in principal to equalize or compensate the lower interest rate. Quite often he is offered in addition a bonus of new preferred stock so that, should the reorganized railroad prove successful, he will receive an actual increase in income.[d]

---

[b] This is indicated by the statistics of the 57 reorganizations studied by Meany. They involved approximately $1,250,000,000 of bonds of all descriptions. Of these, less than $200,000,000, or 15 per cent only, were undisturbed. Poor's Manual of Railroads, 1900.

[c] If the securities outstanding upon the main line section are all out of proportion to the earning capacity of the physical property, then there must be a severe cutting down not only of fixed charge bonds but also of the stocks given as a bonus. This is illustrated in the refunding of securities of one of the affiliated Erie companies in the last Erie reorganization. At the time this affiliated line was called the New York, Pennsylvania and Ohio. It had been chartered in 1858 as the Atlantic and Great Western to unite certain small lines in and about Meadville, Pa., and ultimately became a very important main line link in the Erie's New York-Chicago system. It was financed by a Spanish-French nobleman and English capitalists brought into the project by James McHenry, famous in the later history of the Erie Railroad. It was a failure from the beginning, although its history, under the administration of McHenry, Gould and General McClellan, forms one of the most dramatic recitals in the history of American railroad promotion. It was either leased to the Erie, or in the hands of receivers continuously. In 1894 when it finally became an integral part of the Erie system, its capitalization was at the rate of $395,000 a mile—about all of which had been contributed by foreign capitalists. Its reorganization involved one of the most extreme sacrifices which foreign bondholders of a prominent American railroad have been compelled to undergo. The First Mortgage bondholders received

Some kind of a balancing off of increased principal—collectable only in the far distant future—against an immediate reduction of interest charge has been necessary in practically every comprehensive reorganization. The treatment of the underlying bonds in one of the two recent comprehensive reorganizations is seen from the table to be given presently. But the practice was common in the great comprehensive reorganizations of the middle nineties, as these three cases indicate:

In [illegible] new Co, is no better off

Name	Percentage of New Bonds	Saving in Interest Rate (per cent)	Net Reduction in Fixed Charges (per cent)
Norfolk and Western Adjustment Mortgage 7s	130%	3%	1.8%
Northern Pacific:			
First Mortgage 6s	135	2	.6
Second Mortgage 6s	118½	2	1.3
Third Mortgage 6s	118½	3	2.5

In the case of the Baltimore and Ohio reorganization, the

---

20 per cent in new First General 4 per cent Mortgage Bonds and 27 per cent in stocks. The Second Mortgage bondholders were given only 20 per cent in common stock—then valued on the market at less than $10 a share. Finally the common shareholders of this unfortunate "main line" division were offered 1 per cent of their principal in this same common stock.

[d] A good illustration of this principle is the treatment of the underlying 6 per cent First Mortgage bondholders in the old Toledo, St. Louis and Kansas City reorganization. There was due on these bonds 30 per cent of unpaid interest, yet the earnings of the road were ample to meet the current interest on the bonds. Clearly the bondholders would expect that their unpaid interest should be paid, yet so much new money was required to meet the necessary charges that it would have been practically impossible for the stockholders to secure the necessary money. A compromise was necessary. The bondholders were given 100 per cent in new 3½ per cent Prior Lien Bonds and in addition 62½ per cent in new 4 per cent Second Mortgage Bonds, and 30 per cent in new preferred stock. By this arrangement they would receive the same stipulated income, $60 a year, but the principal of their bonded lien was increased and the bondholder had the opportunity of an increased income should the reorganization prove successful.

holders of some of the underlying bond issues were offered the principal in low (3½ per cent) First Mortgage Bonds, and a bonus of 12½ per cent in Second Mortgage 4s. The exact result upon the value of his investment was therefore very difficult for the average bondholder to compute. And in general it may be observed in passing that the more complicated the exchange of securities is—and therefore the more difficult for the bondholder to estimate his profit or his loss—the easier is it for the reorganization managers to convince him that it is to his advantage to make the proposed exchange.

Later Main Line and Important Branch Line Liens.—Underlying bonds of the second class, later liens on the main lines and first liens on the important branch lines, can be treated much less tenderly than bonds of the first class. The holders of this second class can be forced to undergo some sacrifice, because they will recognize that even if they can make their properties pay, by operating them independently, it will involve large expense and much trouble. Consequently, they will refund their bonds if the offers of the reorganization committee are at all reasonable. It is possible, therefore, to count on at least a slight reduction in fixed charges from these bondholders, and strong pressure may be exerted by reorganization managers to force them to accept the refunding securities offered them. Under date of October 15, 1915, the various reorganization committees of the Missouri Pacific Railway published an "Analysis of the Security for the Bonds Dealt with under the Missouri Pacific Plan of Readjustment." Although the Missouri Pacific, so far as the main structure of the system is concerned, was not a comprehensive reorganization of Class I, still it did seek to simplify and to refund the bonded debt on many of the branch lines. And this "analysis" is a somewhat remarkable document in the annals of reorganization history, in that it laid before the public, in unequivocal form, the simple strategic motives which lead reorganization committees to deal with railroad bonds according to the security behind them and not according to the letter of their legal form.

For example, it was proposed to refund a certain collateral trust mortgage bond due in five years into a bond of the same interest rate, due in fifty years. This bond might well be considered as belonging to the second class, referred to above. Its security consisted of unimportant main line sections, and important branches. No sacrifice of either principal or interest was demanded of the owners, ostensibly, yet in being required to refund a 5 per cent bond due in five years into one due in fifty years, when the credit of the road was not on a 5 per cent basis, they were being asked to undergo at least a temporary sacrifice.

"$9,636,000 Missouri Pacific First Collateral Mortgage 5 per cent Bonds due 1920: These bonds, like the Trust 5s of 1917, are secured not by direct mortgage but by pledge of smaller bond issues. There are nineteen of these issues, of various maturities, secured by separate first mortgages on nineteen sections of the system in Kansas, Nebraska, Missouri and Tennessee." [Then follows the list of securities securing the collateral trust issue.] [8]

"Even portions of the main line indirectly covered might be omitted from the system of the new company and its traffic cared for by other means; or the new company might, by paying part of the pledged bonds of earlier maturities and paying interest on additional pledged bonds of later maturities and the principal when due, acquire about one-half of the mileage covered indirectly by this issue, including all portions of the main line so covered, leaving the Collateral 5s to realize a large deficiency from pledged bonds in default secured on branches not taken over by the new company. There would probably be deductions for expenses of collection of the deficiency, and assessments upon the Collateral 5s would doubtless be necessary for development of the branches not taken over by the new company. Considering these conditions, it is believed that the intrinsic value of the Collateral 5s, as well as the measure of importance and value to the system of the properties comprised in their security, is recognized by the offer of 100 per cent in new First and Refunding 5 per cent Bonds secured by a system mortgage covering a large mileage with diversified traffic, which is believed to afford a greater measure of safety than the existing collateral." Analysis of Securities, 4 (Oct. 15, 1915.)

---

[8] This list, with brief comments, is reproduced in Book I, Chapter V, note g (pages 128 and 129).

Or again, the strategic value of an important but not essential bridge is carefully weighed.

"$393,000 Little Rock Junction Railway First Consolidated 6 per cent Bonds due 1916, guaranteed by the Iron Mountain Company. These bonds are secured by mortgage upon an important bridge property near Little Rock, and their co-operation in the plan is of value to the new company. On the other hand, the Iron Mountain Company is not without an alternative route into Little Rock, and the Iron Mountain traffic is believed to be essential to the value of this bridge property. In view of these considerations the plan offers to holders of these bonds 100 per cent in new First and Refunding 5 per cent Bonds." *Ibid.*

Regarding the intention of the reorganization managers to force underlying divisional bondholders to accede to their plan, an editorial writer discussing the Missouri Pacific plan remarked: "The security holders may be assumed to know what it means to be told that although the holder of a mortgage bond may foreclose his mortgage the property will be useless to him, and that although the holder of a collateral trust bond may capture the collateral he will be unable to do anything with it." [9]

Less Important Underlying Liens.—The third class of underlying bondholders can be treated very arbitrarily. Their properties have little value. Under no stretch of the imagination could they be made profitable if operated independently. In extreme cases they will not even be admitted into the reorganization. At most they will be given only a small percentage of new fixed charge bonds; and ordinarily they will be offered contingent charge securities such as income bonds, preferred stock, and common stock. Under any circumstances the refunding of this class of bonds will effect a conspicuous saving in the new fixed charges.[e]

---

[e] The "analysis" of the Missouri Pacific branch line securities, referred to and quoted above, thus disposes of four unimportant branch lines:

"$650,000 Missouri Pacific—Lexington Division 5 per cent First Mort-

---

[9] 6 Annalist 36 (July 12, 1915).

These principles can be understood from the detailed study of the refunding operation in one of the recent comprehensive reorganizations, that of the Pere Marquette Railroad in the autumn of 1916.[11] In this reorganization all [12] of the underlying and divisional bonds were refunded into a single issue of general first mortgage bonds—part of which bore 5 per cent interest and part 4 per cent. There were in all eleven separate issues of underlying and divisional bonds, aggregating $26,314,000 [13] and carrying fixed charges to the amount of $1,275,160, or an average of 4.8 per cent. These eleven issues occupied very different strategic positions, both with respect to the status of their lien and the geographical position of the section of the railway securing them. The earning capacity of the branch lines varied also. With these differences, it is possible to classify these eleven issues into the three classes described in an earlier paragraph.[14] (Tables follow.)

As a result of the process of refunding, the principal of these underlying and divisional issues was reduced by almost $5,000,000 and the fixed interest charge from $1,275,160 to $982,140—a reduction in charges of over 22 per cent.

---

gage Bonds, due 1920. $520,000 Leroy and Caney Valley 5 per cent First Mortgage Bonds, due 1926. $1,024,000 Kansas City Northwestern First Mortgage 5 per cent Bonds, due 1933. $500,000 Boonville, St. Louis and Southern First Mortgage 5 per cent Bonds, due 1951. These four issues of bonds are secured by first mortgages upon branches which it is believed could without material detriment be dropped from the system. It is estimated that for some time past none of these branches has yielded any substantial excess above operating expenses, while some of them have been operated at an actual loss. Their potential values as contributors of traffic to the system or otherwise are believed to be fully recognized by giving them 100 per cent in new convertible 5 per cent preferred stock." [10]

---

[10] Analysis of Securities dated October 15, 1915.

[11] A much more intricate case, illustrative of a comprehensive, but not drastic reorganization of the middle nineties, is that of the Baltimore and Ohio Railroad. Plan published 66 Chron. 1235.

Throughout this discussion the Pere Marquette reorganization of 1916 is used as an illustrative case. It is the most thoroughly typical of any of the recent reorganizations of Class I.

[12] Except for two small issues covering 199 miles of a Canadian subsidiary.

[13] In this paragraph and in the tables pertaining to it, no cognizance is taken of the unpaid coupons. These were, for the most part, refunded into the same kind of security as the principal of the bond. A consideration of them, however, merely introduces complexities.

[14] One interested in relative values should compare the tables on pages 1060 and 1061 with that given in Book V, Chapter III, note (xx) in which the court's "Decree value" of each of the bonds is given.

Plan of Refunding Underlying and Divisional Bonds, Pere Marquette Reorganization of 1916

Name	Old Underlying and Divisional Bonds					New Securities Used for Refunding			
						First Mortgage			
						5 per cent		4 per cent	
	Interest Rate	Principal	Fixed Charge	Character of Lien	Class of Underlying Bond	Per cent	Amount	Per cent	Amount
Flint & Pere Marquette First Mort.	6%	$ 4,000,000	$ 240,000	Main line	1	100%	$ 4,240,000	......	......
Flint & Pere Marquette First Mort.	4	1,000,000	40,000	Main line	1	100	1,000,000	......	......
Detroit, Grand Rapids & Western First Cons.	4	5,379,000	215,160	Main line	1	......	......	100%	$ 5,379,000
Chicago & West Mich. First Mort.	5	5,758,000	287,900	Main line	1	100	5,758,000	......	......
Toledo Division First Mort.	5	400,000	20,000	Important branch	1	100	400,000	......	......
Flint & Pere Marquette First Mort.	5	2,850,000	142,500	Main line (2d lien)	2	56.2	1,601,600	50	1,425,000
Indiana Division First Mort.	4	675,000	27,000	Branch	2	......	......	100	675,000
Saginaw, Tuscola & Huron First Mort.	4	1,000,000	40,000	Branch	2	......	......	100	1,000,000
Port Huron Division First Mort.	5	3,325,000	166,250	Branch	3	......	......	......	......
Chicago & North Michigan First Mort.	5	1,667,000	83,350	Unprofitable branch	3	......	......	......	......
Grand Rapids, Belding & Saginaw First Mort.	5	260,000	13,000	Unprofitable branch	3	......	......	......	......
		$26,314,000	$1,275,160				$12,999,600		$ 8,479,000
									$21,478,600

Plan of Refunding Underlying and Divisional Bonds, Pere Marquette Reorganization of 1916—(*Continued*)

Name	New Securities Used for Refunding (*Continued*)						
	5 Per Cent Preferred Stock		Common Stock		Fixed Charge	Increase or Decrease	Contingent Charge
	Per cent	Amount	Per cent	Amount			
Flint & Pere Marquette First Mort					$212,000	— $28,000	
Flint & Pere Marquette First Mort					50,000	+16,000	
Detroit, Grand Rapids & Western First Cons					215,160	same	
Chicago & West Mich. First Mort					287,900	same	
Toledo Division First Mort					20,000	same	
Flint & Pere Marquette First Mort					137,080	—5,420	
Indiana Division, First Mort					27,000	same	
Saginaw, Tuscola & Huron First Mort					40,000	same	
Port Huron Division First Mort	60%	$1,995,000	30%	$ 997,500		—166,250	$ 99,750
Chicago & North Michigan First Mort	33⅓	555,700	66⅔	1,111,400		—83,350	27,785
Grand Rapids, Belding & Saginaw First Mort			100	260,000		—13,000	
		$2,550,700		$2,368,900	$989,140	—$286,020	$127,535

First General Mortgage Liens.—Leaving now the whole class of underlying bonds, in the refunding of which no great saving in fixed charges can be anticipated, we come to the second level of bonds, that represented by the first mortgage liens covering the entire system. The problem of dealing with these bonds presents no such complexity as that attending the refunding of the underlying and divisional liens. If, as is quite often the case, the interest charges on these bonds were fully earned before and during the receivership, they must be treated with a full consciousness of the strength of their position. As the mortgage covers the entire road, these bondholders would have the power to foreclose their lien on the whole system and put through a reorganization of their own which would exclude both the junior bondholders and all the stockholders. They cannot, therefore, be asked to endure much of any sacrifice, although they can be counted on to co-operate in the simplification of the financial structure of the new road by refunding their bonds. Generally, however, the interest on these general first mortgage bonds has only been partly earned before and during the receivership. In this case the bonds are refunded into a fixed charge bond and a contingent charge income bond or stock, the proportion depending on the relative strength of the old bonds. This is well illustrated by the comprehensive reorganization of the St. Louis and San Francisco in 1916. Following the underlying and divisional liens there were $68,500,000 First General Mortgage Bonds bearing 4 per cent interest. These were refunded into 75 per cent Prior Lien 4s—the issue that became the First Mortgage on the entire system and the same issue that was given for assessments and used to refund the underlying liens—and 25 per cent of a First Income 6 per cent Bond, the issue next following the prior lien mortgage. Although the interest on these income bonds was contingent on earnings, the current earnings of the road gave good assurance that it would be paid. This being the case, the holders of the old bonds would receive a slightly greater investment return, 4½ per cent instead of 4 per cent; but 1½ per cent was contingent.

In the extreme cases in which the interest on these general first mortgage bonds was not earned during the receivership, they are invariably refunded into a contingent charge security. Usually this is a preferred stock, ranking after the security given for the stockholders' assessments. This was exactly the plan pursued in the other recent comprehensive reorganization, that of the Pere Marquette. The reorganization could very well be drastic because, by inordinately large depreciation charges on rolling equipment the receiver had worked out an operating ratio of 106 per cent in 1914! Nevertheless, even if less rigorous charges to depreciation and repairs had been made, the operating ratio would have been about 90 per cent, and the 10 per cent available for interest charges would have been fully absorbed by rentals and the interest on receivers' certificates and underlying and divisional liens. Consequently holders of the First General Mortgage Bonds ($8,382,000 Consolidated 4s of 1951) were required to accept their principal and unpaid coupon interest at par in new second preferred stock—the security ranking directly after a first preferred stock given for the stockholders' assessments.[15]

Refunding of General Mortgage Bonds.—The commonest method of dealing with these first general mortgage bonds is to refund them into a mixture of fixed and contingent charge securities,[f] as described above, because there is usually grave doubt whether or not, had adequate depreciation and maintenance charges been made, the interest on this level of bond would have been rightfully earned. When this method of refunding is used, fairness demands that the volume of contingent

---

[f] This was almost invariably the method of treating this level of bonds in the comprehensive reorganizations following the panic of 1893. The actual working out of the procedure, in a rather complicated case, is shown by the final reorganization plan of the Baltimore and Ohio.[16]

---

[15] For further discussion of this interesting case, with figures, see Book III, Chapter II, note (e).

[16] Details in 66 Chron. 1,235. An enlightening summary is given in Daggett, S., Railroad Reorganization. 24-27 (1908).

charge securities given to offset the reduction in fixed interest shall be such that if the earnings of the reorganized road prove to be so large as to have warranted the payment of the old rate, then the payments in these contingent charge securities will more than make up the balance. That is, if an old 5 per cent first mortgage bond issue is refunded into 4 per cent bonds, par for par (or into bonds bearing the same rate but with reduced principal), then in addition the old bondholders should be given enough preferred stock or income bonds to amount, when the contingent charge is paid, to more than the reduction in fixed income return—in this case 1 per cent. Therefore, in addition to the new 4 per cent bonds, the old bondholders should be given enough preferred stock, so that the income on it, if paid, will amount to at least 2 per cent. This acknowledges that the first mortgage bondholder, by accepting part payment in a contingent charge security, becomes at least partially a partner in the fortunes of the enterprise. As he accepts a share of the burden of low earnings, he should be given a chance to profit through increased earnings.

This was illustrated in the refunding of the General First Mortgage Bonds in the St. Louis and San Francisco reorganization. But perhaps the best illustration of this principle on a large scale is afforded by the second Atchison reorganization. The first reorganization of 1888 and the second reorganization of 1895 were actually the successive parts of a single comprehensive reorganization, the first part refunding the underlying and divisional issues and the second part accomplishing a permanent reduction in fixed charges and the collection of new money from the junior security holders. At the time of this second reorganization, the net earnings, as corrected by Stephen Little, were less than $6,000,000. The rentals, underlying bond charges and interest on the First General 4 per cent Mortgage Bonds slightly exceeded this. Consequently the fixed charge on these First General Mortgage Bonds had to be reduced. This was done by giving the bondholder 75 per cent in new First General 4 per cent Mortgage Bonds and 40 per cent in 4 per cent Income Bonds. The holder of a $1,000 bond had his fixed income reduced from $40 to $30, but he was given an opportunity to receive $16 more if the earnings exceeded the interest on his own First General Mortgage Bonds. The exchange made the old fixed charge bondholder a partner in the fortunes of the reorganized Atchison system to the extent that he might be called upon to endure a loss of 25 per cent in his income in time of lessened earnings, while he stood in the position to gain 15 per cent in his income during periods of large earnings.

Refunding with Contingent Charge Securities.—In refunding bonds bearing fixed charges into contingent charge securities, the question invariably arises as to whether preferred stock or income bonds should be used. The latter were very common during the reorganizations prior to 1893, because it was believed, probably rightly, that security holders would the more readily consent to give up bonds with a fixed claim on income, if they could receive new securities bearing the name of bond, even though the interest would be paid only if earned. It is a matter of name. A contingent charge security is not as attractive to the wavering investor if called a stock, as it would be if called a bond.[17] As the majority of the old income bond indentures provided that the interest should be paid out of net earnings only "if earned," the question arose periodically whether or not the accounting system employed by the management of the road gave a correct interpretation of net earnings. If, again, as was usually the case, the management controlled the common stock and was different in personnel from the income bondholders, then it was distinctly of advantage for the management to represent the earnings to be low, by unusually liberal maintenance charges. By this means money otherwise payable to the income bondholders and forever lost to the railroad could be used to build up the property to such a point that the income would justify payments on the common stock quite as well as on the income bonds.[g] Invariably a controversy would arise.[h]

---

[17] This was discussed at some length, Book I, Chapter VI, pages 166 to 175. See Daggett's observations, note (i).

Litigation of Central of Georgia Income Bondholders.—One of the most interesting controversies of this kind arose in connection with the income bonds of the Central of Georgia Railroad. This road had its origin in a reorganization of the old, long-established Central of Georgia Railway in 1895. As a result of the reorganization, the company was burdened by three issues of income bonds, preceding a relatively small issue of stock. This is shown by the financial plan (small underlying issues not specifically mentioned):

Mortgage Bonds (fixed charges):		
Prior Lien	$ 1,840,000	
General Mortgage	7,000,000	
Consolidated Mortgage	16,500,000	
Total Fixed Charge Securities		$25,340,000
Income Bonds (contingent charges):		
First Preference, 5% Non-Cumulative (Interest to be paid if earned)	$ 4,000,000	
Second Preference, 5% Non-Cumulative (Interest to be paid if earned, after the first preference)	7,000,000	
Third Preference, 5% Non-Cumulative	4,000,000	
Total Contingent Charge Securities		$15,000,000
Common Stock		5,000,000
Total Securities		$45,340,000

From this it will be observed that $5,000,000 common

---

[g] Mead put the whole matter with admirable clearness when he said: "The security of the income bondholder is the willingness of a board of directors which he has had no share in the choosing, to pay over to him sums of money which they have a perfect right to expend on the improvement of the property, a task which is never completed."[18]

[h] In the reorganization of the New York Railways Company (the surface car lines of New York City) certain adjustment or income mortgage bonds were created which should receive interest only if earned. The company, in order to hold back earnings, created a "Reserve for Injury and Damage Claims" account and charged large sums to it. The managers of the company did not create any such account in the books of other traction companies operated in New York City, nor was such an account required by the Public Service Commission of New York, First District, under which the company operated.[19]

---

[18] Mead, E. S., "The Reorganization of Railroads," 17 An. Am. Ac. Pol. Soc. Sci., 235 (1901).

[19] See report of Cobb, Augustus S., November 18, 1914.

stock, possessing, in the years immediately following the reorganization, only a nominal value of a few dollars a share (the third income bonds were quoted at 7 per cent five years after the reorganization) controlled over $40,000,000 of securities. Obviously, it was for the advantage of the common stockholders to build up the physical condition of the road by deflecting earnings to betterments. This could be accomplished by surreptitiously charging such betterments to the ordinary maintenance accounts. As a result little or no margin would appear to remain, after the payment of fixed charges, to apply to the contingent charges on the three income bond issues. And as these charges were not cumulative, the management could gradually build up the road from money that ought to have been paid to the income bondholders.

This is exactly what was done. The earnings of a subsidiary steamship company were deflected to capital account, the maintenance charges were increased to an amount well above those of other southern roads and far above the average for the country as a whole. During 1907, by such a system of adroit accounting, the management had been able to pay 5 per cent on the first income bonds, 3.729 per cent on the second, and to show $32.95 as a remainder out of over $12,000,000 gross earnings. Court proceedings were brought against the management to force the admission of secret earnings, and the payment of the full interest on all the income bond issues. The following was the court's finding:

Net earnings, after fixed charges admitted by the railroad	$ 461,030
Additional net earnings, added by the court:	
Earnings of the subsidiary steamship line that should have been paid to the railroad	544,399
Excessive reserve for unadjusted claims on lumber freight	100,000
Excessive maintenance	240,110
Minor adjustments, credit	81,223
Minor adjustments, debit	*102,828*
Total net earnings available for income bond interest	$1,323,934
First, second, and third income bond interest	750,000
Surplus available to common stock	573,934
Equivalent to	11.4%

This decision was rendered in 1910 and referred to the year

1907. Meanwhile, in June, 1909, the Illinois Central Railroad had acquired the common stock and had made the Central of Georgia its southeastern connection. In view of the decision something had to be done to settle the threatened prolonged litigation with the income bondholders concerning the interest before and after 1907. Accordingly the Illinois Central provided the Central of Georgia Railroad with $15,000,000 in money, by means of which all three issues of income bonds were retired at par and took in return 6 per cent Cumulative Preferred Stock of the Central of Georgia at par.[20]

Increasing Use of Income Bonds.—As a result of the unfortunate experiences with income bonds, and the possibilities of trouble they involved, it has gradually become the accepted practice in the many railroad reorganizations following the panic of 1893, to use preferred stocks instead of income bonds for the contingent charge security.[i] Unfortunately this wise procedure has not been followed altogether of late, and one notes with regret [22] an increasing tendency to ease the friction at the time of reorganization by a liberal use of income bonds.[j]

---

[i] Only one of the great reorganizations of the nineties used income bonds—the Atchison, Topeka and Santa Fé—and then a preferred stock was used in addition. Daggett made a statistical study in 1908, covering a selected group of reorganizations, including some occurring before 1893 and some in the years immediately following. He stated: "It will be noted that income bonds were more used before 1893 (than after 1893) owing probably to the fact that the name of bond was considered to increase the salability on the market. The use of income bonds has declined as a more accurate knowledge of their limitations has become widespread." [21]

[j] An interesting and on the whole vicious "compromise" practice has crept into use of late. It is that of making a bond issue a contingent charge up to a certain date and a fixed charge thereafter. One of the most striking cases of this character is that of the bonds to be used in the reorganization plan of the Northern Electric Railway of California. The plan was filed May, 1918.

Class A bonds—Interest a fixed charge, beginning July, 1917.

Class B bonds—Interest to be paid "if earned" up to July, 1919, thereafter interest fixed.

---

[20] Further details, up to the time of the court decision, see Dewing, A. S., "The Position of Income Bonds, as Illustrated by those of the Central of Georgia Railway," 25 Quart. Jour. Econ., 396 (Feb., 1911).

[21] Daggett, S., Railroad Reorganization, 366 (1908).

[22] This increasing use of income bonds was also noted with regret by Daggett in a periodical article. Daggett, S., "Recent Railroad Failures and Reorganizations," 32 Quart. Jour. Econ., 446 (May, 1918).

That it accomplishes the result is undoubtedly true, but that it sows seeds of trouble for the future is also undoubtedly true.

In 1910 the following observation was made in another connection, and the largely increased use of income bonds in connection with recent reorganizations has confirmed the writer's first judgment. "They [the income bonds] have proved undesirable from the point of view of the investor because he is not a true creditor in the ordinary sense that a bondholder is, yet at the same time he has no voting power such as that exercised by the stockholder. His interests are in continual conflict with those of the other security holders. The income bonds have also proved undesirable from the point of view of the road and for the following reasons: (1) The continual dispute between the management and the income bondholders disturbs any possible harmony of interests and management. (2) This dispute injures the general credit of the road. If the income bondholders have their way, it becomes difficult to build up the road by liberal maintenance appropriations, and as far as capital expenditures are concerned the road finds it difficult to persuade the income bondholders to allow the directors to issue new mortgage or debenture bonds which shall have a prior claim on the earnings—thereby any legitimate expansion and improvement of the road is hampered. (3) And lastly, the presence of income bonds is now accepted as a confession of financial weakness at some time in the immediate past." [23]

Greater Use of Cumulative Preferred Stock.—Another tendency, too, that has crept into reorganization practice of recent years is the use of cumulative instead of non-cumulative preferred stock, where preferred stock is used as the contingent

---

Class C bonds—Interest to be paid "if earned" up to July, 1922, thereafter interest fixed.

Class D bonds—Interest to be paid "if earned" up to July, 1927, thereafter fixed.

An instance in which an effort is made to protect the income bonds against future general obligations is afforded by the "adjustment bonds" of the Seaboard Air Line Railway (see page 1074.)

---

[23] 25 Quart. Jour. Econ., 405.

charge security.[24] Here, again, the cumulative feature of the contract is added in order to make the contingent charge security more attractive to the old bondholder who is asked to refund his fixed interest-paying bonds into a preferred stock. Although by no means as objectionable as the income bond, the cumulative feature may impose an unwholesome burden on the new corporation during the period of its rehabilitation, if the management feels under obligation to meet the preferred dividends out of scanty earnings.[k] For this reason the dividends are often made cumulative only after a period of two or three years.[l]

Junior Securities.—The third class of security to be considered in a comprehensive reorganization is the heterogeneous mass of junior securities subsequent in position to the general first mortgage bonds. They may include the consolidated and refunding mortgage bonds, the debentures, and the short-term notes. It is at this point that the greatest saving in fixed charges is invariably made, for the reorganization plan almost invariably provides that these bonds shall be changed, in large part at least, into income bonds or preferred stock. The ac-

---

[k] The same view is taken by Daggett in his summary of recent railroad reorganizations. "From the point of view of reorganization technique two matters seem to deserve emphasis in this rapid survey of recent railroad experience in finance. The first is the increased use of preferred stock with rights to cumulative dividend, and the second is the considerable reliance upon the cumulative income bond. No less than nine examples of these two classes of securities are outstanding. Indeed, they account for a considerable part of the saving of fixed charges. . . . This practice, however, has little to commend it. Railroads are to some extent protected by it against formal bankruptcy, yet such formal bankruptcy is often better than the piling up of a huge load of unpaid dividends before a worthless and speculative common stock."[25]

[l] The 5 per cent Preferred Stock of the Missouri Pacific Railroad became cumulative about a year after the reorganization. This is unusual. On the other hand, in the Hudson and Manhattan tunnels reorganization, there was issued a large amount of 5 per cent Income Bonds the payments on which were non-cumulative for seven years from 1913 to 1920 and cumulative thereafter until payment in 1957. Ordinarily, however, the dividends or the interest remain non-cumulative for a shorter time—about three years in a considerable number of cases.

---

[24] Discussed at length, Book I, Chapter III, page 57.

[25] Daggett, S., "Recent Railroad Failures and Reorganizations," 32 Quart. Jour. Econ., 483 (May, 1918).

complishment of this, however, in actual practice involves delicate problems of adjustment. On the one hand, the volume of these contingent charge securities offered in exchange for the junior liens, debentures, and notes, must be sufficiently liberal to induce the holders to accept the exchange, else they will obstruct the course of the reorganization or force the committees to purchase their interest, however small it may appear to be; on the other hand, the volume offered must not be so large as to absorb any equity remaining to the stockholders, else the latter will not accept the reorganization plan and the requisite new money will not be forthcoming. Between this Scylla and Charybdis, the reorganization committee must steer its course. And the matter is to be decided solely on the basis of the exigencies of the situation. If the failure is very serious, as in the case of the Pere Marquette, not only are no fixed charge bonds given for this level of junior bonds, but the holders are required to pay an assessment and take, altogether, only preferred and common stocks in the new company;[m] whereas if the failure is not so serious, these bondholders may even be given a small proportion of their lien in new fixed charge securities. This was the plan followed in the other recent comprehensive reorganization, that of the St. Louis and San Francisco.[n] Ordinarily, however, judging from the com-

---

[m] In the comprehensive reorganization of Pere Marquette (assessments described in Book V, Chapter V, page 1025, and exchange of securities on pages 1060 and 1061) there were three layers of these junior bonds above the preferred and common stock. Only the uppermost layer ($14,000,000 Refunding Mortgage 4s of 1955) was offered the privilege of exchange—and this into common stock. The two lower levels ($2,000,000 Collateral Trust Notes and $5,000,000 Debentures) were treated exactly the same as the old preferred and common stocks. That is they were assessed 9¾ per cent and given 10 per cent in new first preferred and 20 per cent in new common stock.

[n] There was only one bond issue on this level to be dealt with in the last reorganization of the St. Louis and San Francisco—the $70,000,000 "General Lien" 5s of 1927. These bonds were given 25 per cent in new Prior Lien 4s (the premier security of the reorganized road), 25 per cent in First Income 6s and 50 per cent in Second Income 6s. Although extremely doubtful, still there was a possibility that, even with proper maintenance, something had been earned on these bonds. An allowance of 25 per cent in principal and 20 per cent in fixed income return was an acknowledgment of this possibility.

The extensive use of income bonds—with the interest charges cumulaprehensive reorganizations of the later nineties, the holders of these junior securities have been neither assessed, nor given new fixed charge bonds. They have been asked to accept, par for par, a preferred stock or an income bond. In this way, the refunding process involves no change whatever in the gross capitalization of the road, but does involve the total extinction of the fixed charges previously carried by them. In fact, it is true to say that the major reduction in fixed charges at the time of a comprehensive reorganization of a railway occurs on these levels of junior bonds.

Summary of Methods for Reducing Fixed Charges.—From this analysis, it is possible to summarize the practical expedients in current use for reducing the fixed charges at the time of a thorough and comprehensive railroad reorganization. The old underlying and divisional bonds are refunded into one blanket issue, bearing a lower rate of interest. The ratio of exchange is determined in each case according to the earning power and strategic position of the property covered by the lien. On this level there is little reduction in fixed charges. The general first mortgage bonds are refunded into new general mortgage bonds, with ordinarily some slight saving in charges—the relative amount depending on the margin, if any, of net earnings available to the old general first mortgage bonds. All the bonds junior to these first mortgage bonds are refunded into a contingent charge security, involving the total extinction of fixed charges. It has seemed worth while to describe, in considerable detail, the treatment of dif-

---

tive—was a very serious defect in the St. Louis and San Francisco reorganization plan. Trouble is bound to arise later, if the interest is not paid on the two income bond issues. If it is paid, the reorganization has accomplished next to nothing of permanent value. It relieved a temporary crisis; it did not remedy the numerous serious and unintelligent blunders in the past financial management of this particular railroad. If it is not paid, litigation is bound to result. The experience of the Central of Georgia, with its three issues of income bonds, is distinctly parallel (see page 1066). The plan evolved by the managers of the St. Louis and San Francisco reorganization lacked both in boldness and breadth of understanding; it showed none of the penetrating intuition and daring of execution that marked other recent American railroad reorganization plans.

ferent classes of securities in typical reorganizations of Class I, because the practices followed in other reorganizations are only modifications of these.

Fixed Charges in Superficial Reorganizations.—The methods of reducing the fixed charges in reorganizations of the second class—superficial reorganizations following temporary embarrassment or less serious failures—are far less drastic than those just described. As the failures of this class are less serious, so the sacrifices demanded of the security holders are less serious. The reorganizations are less penetrating; they affect only the superficial layers of the financial structures.

In a reorganization of this class the underlying and first mortgage bonds are in no way affected. The railroad, both in the period before the crisis and during the receivership, fully earned the interest on these bonds. But this is not true of the junior securities. The interest on these was not earned and the necessity of paying it precipitated the crisis. At this level, and only here, it is expedient and just to demand a sacrifice. Accordingly, the holders of these junior bonds are asked to refund them into contingent charge securities—income bonds or preferred stock. This involves the total extinction of the obligatory interest.[o] These junior bonds, together with the stocks, are the only securities disturbed in a reorganization of this kind. And the new preferred stocks or income bonds given in exchange are quite as valuable as the old junior bonds, considering the decreased earnings of the road, so that little real sacrifice is asked of any of the bondholders.

Within recent years there have been several typical reorganizations of this class among important railroad systems.

---

[o] As observed in connection with the contingent charge security used in reorganizations of Class I (page 1069), there is a growing tendency to make the dividends cumulative instead of non-cumulative. But in deference to the important principle that a railroad should be given a reasonable time in which to recover from its crisis, without a needless drain of capital charges, the cumulative period of the dividends usually begins some years after the reorganization. This practice was observed in the majority of the recent reorganizations of Class II.

Among them were the last reorganization of the Wabash in 1915 and the reorganizations of the Chicago, Rock Island and Pacific, and the Missouri Pacific in 1917. The plan adopted in each case was exactly the same, except for individual peculiarities and unimportant details. The underlying and divisional bonds were undisturbed. The general first and second mortgage bonds were undisturbed. In each case the decrease in fixed charges was brought about by refunding one or more issues of junior bonds into a preferred stock, having a position just one step inferior to the security given for the stockholders' assessments. That is, the uppermost layer of bonds was refunded into a medium-grade stock. Absolutely nothing was done to disturb any of the other layers of bonds.

Capital Adjustment.—Often, among failures of this second class the conditions are not sufficiently serious to warrant even a forced or involuntary reorganization. A kind of "capital adjustment" is considered sufficient, the object of which is merely to reduce or extinguish some particularly burdensome fixed charges. Often, in such cases, the owners of the upper level of fixed charge bonds consent to exchange them for an income bond or preferred stock. That is all there is to the "adjustment"; a fixed charge on a portion of the funded debt becomes contingent and the immediate occasion of bankruptcy is thereby averted. A case perhaps intermediate between "capital adjustment" and "reorganization" is the voluntary rehabilitation of the financial structure of the Seaboard Air Line Railway which followed exactly the plan outlined above. Being a voluntary adjustment, consummated without the coercive power of the courts, little help could be obtained from the stockholders. For that reason no attempt was made to levy assessments, and the old stock was undisturbed. The crux of the entire matter consisted of a refunding of an issue of $6,345,000 of General Mortgage 5 per cent Bonds, with their overdue interest, into income bonds. These income bonds were specifically protected by a clause to the effect that no general credit obligations issued thereafter could have a priority of income over the income bond interest.

Reorganizations of Small Railroads.—Reorganizations of Railroads of Class III, the small local railroads, are striking in the drastic manner in which the various security holders are handled. Their financial structure is quite simple—ordinarily a single issue of first mortgage bonds and a single issue of stock. An examination was undertaken of all the failures and resulting reorganizations of these small roads that could be said to have any general interest. Between 1913 and 1924 it was found that 27 cases could be properly considered to meet these conditions.[26] Of these one only could be said to have given any consideration whatever to any actual or potential value that may have existed in the old common stock. The reorganization plan in which this was not true, that of the Western Maryland, was a voluntary reorganization in which the willing co-operation of the stockholders was necessary for success.[27] This well-nigh universal exclusion of common stockholders was effected, ordinarily, without even a chance of recovering some of their loss through the payment of an assessment—as was almost universally the case in Class I and Class II reorganizations. Of the 27 cases in which the common stock was extinguished the stockholders were not offered even the privilege of an assessment in seventeen cases.

Outstanding Characteristics.—The outstanding characteristic of these reorganizations of Class III is the burden they

---

[26] Omitting certain small foreign roads reorganized in New York by American capital.

[27] These cases were as follows (no order in the listing):

Detroit, Toledo & Ironton
Oklahoma Central
Cincinnati, Indianapolis & Western
Wabash Pittsburgh Terminal
Colorado, Wyoming & Eastern
Middletown, Unionville & Water Gap
New York, Auburn & Lansing
Atlanta, Birmingham & Atlantic
South Dakota Central
Kansas City Northwestern
Colorado Midland
Leavenworth & Topeka
Tennessee Central
White Pass & Yukon
St. Louis & Hannibal
Tennessee Railway
Missouri, Oklahoma & Gulf
Arkansas & Louisiana Midland
Evansville & Indianapolis
Williamsport & North Branch
Fort Smith & Western
Alabama, Tennessee & Northern
New Orleans, Texas & Mexico
Western Pacific
Gulf, Florida & Alabama
Laramie, Hahn's Peak & Pacific
Buffalo & Susquehanna
Western Maryland

CASES IN WHICH THE BONDHOLDERS MUST PAY AN ASSESSMENT TO PARTICIPATE

CASH ASSESSMENT ON BONDS OF STEAM RAILROADS, 1913-1923

Old Railroad	Security Assessed	Amount of Assessment*	For Assessment*	Kind	Preferred Stock*	Common Stock*
Detroit, Toledo & Ironton Ry.	Gen'l Lien Bonds	35%	58⅓%	Income Bonds	50%	50%
	Receivers Certif.	25	41⅔	"	20	30
	Consolidated Bonds	10	16⅔	"	5	10
Oklahoma Central Ry.	First Mtg. Bonds	40	40	First Mtg. Bonds		50
			50	Income Bonds		
Cincinnati, Indianapolis & Western Ry.	First Mtg. Bonds	30	30	First Mtg. Bonds	60	60
Wabash, Pittsburgh Terminal Ry.	First Mtg. Bonds	30		(62.8% Wheeling & Lake Erie Stocks)	30	100
Colorado, Wyoming & Eastern	Income Bonds	10			10	50
Average		26%	39%		29%	50%

* Per cent of par value of old bonds.

CASES IN WHICH THE BONDHOLDERS PARTICIPATE EVEN THOUGH PAYING NO ASSESSMENT

	Assessment (per cent)	New Securities Given (per cent)			
		1st Mtge. Bonds	Income Bonds	Preferred Stock	Common Stock
New Orleans, Texas & Mexico	None		40		25
	20%	20	50		50
Western Pacific Ry.	None			50	75
	36	40		55	95
Gulf, Florida & Alabama	None	10	10		10
	25	50	25		25

throw upon the bondholders. The failure being so severe and as there is no help to be expected from the holders of worthless common stock, the only chance for the bondholders to salvage something from the ruin is to assess themselves. This is illustrated by the tables opposite.

Radical Sacrifices by Bondholders.—A study of these Class III reorganizations shows the theory of reorganization —railway reorganization or the reorganization in any other industry—in its simplest and perhaps most drastic form. It is reorganization of an enterprise in which failure is clear and outstanding—stripped of all delusions and hopes. As the failure is not admitted until after the last shadow of value has disappeared from the stocks the full brunt of the reorganization must fall on the shoulders of the owners of the first mortgage bonds. In its simplest form the first mortgage bondholders merely take over the property—much as the holder of a mortgage on a dwelling house takes over the house on the foreclosure of his lien. A thoroughly typical case of a reorganization of a Class III road following just this plan is that of the Buffalo and Susquehanna Railroad. This road was built in the middle nineties to reach certain coal fields in northern Pennsylvania. It was fairly successful. In 1907 the Buffalo and Susquehanna Railway, the connection to Buffalo, leased the Railroad. The Railway defaulted on its rental in 1910, and the Railroad soon after defaulted on its bond interest. A receiver was appointed for the Railroad, who, through excellent management, proved that the Railroad alone, without the Railway, was a successful enterprise. In the reorganization, the bondholders were merely asked to surrender 30 per cent in principal and interest of their bonds, in return for a bonus of 30 per cent in preferred and 15 per cent in common stock. A small amount of money was raised through assessments on the old preferred stock, but this was not an essential part of the reorganization, as the receiver had placed the road on an established and profitable basis.

Cases of such simplicity and leniency to bondholders are, however, rare. By far the vast majority of the reorganizations of these little railroads turn upon radical sacrifices by the bondholders. As the failure is not admitted until conditions are so serious that the receiver is forced to issue receivers' certificates immediately. Nor are things better by the receivership, and the monthly and annual deficits continue until finally when a reorganization plan is agreed upon and announced it happens not infrequently that about all the value of the railroad, as evidenced by its earning capacity, is limited to these issues of receivers' certificates. Consequently, when the road is actually reorganized, the burden falls back on the shoulders of the holders of the first mortgage bonds, provided they wish to retain any equity above the receivers' certificates. In extreme cases, even, the holders of receivers' certificates may be called upon to make a considerable sacrifice in order to permit the railroad to continue in operation. As a whole the crux of the reorganization is not so much a question of the reduction of fixed charges—such a reduction is admitted without argument even to the extent of refunding the first mortgage bonds into stock—but is rather a question of the amount of assessments that can be successfully levied on senior securities possessing at most only a nominal value. As for the old common and preferred stockholders the value of their shadow of an equity, if they ever had any, has so entirely vanished that they are not given an opportunity to participate in the reorganization, even through the payment of a considerable assessment.

In a very few special cases of reorganization of Class III these observations do not hold true. These are the failures which can be attributed to specific and easily remedied causes—such as unnecessarily burdensome traffic contracts or unprofitable leases—which can be changed by the receiver as soon as he comes into control of the property. In such cases the earnings during the receivership and anticipated earnings after the receivership are so much larger than the earnings during the past that the old stockholders (particularly the preferred shareholders) can claim, with a show of justice, that some equity remains to them.

Cancellation of Burdensome Leases.—Aside from the reduction in the interest on the bonded debt, a considerable saving in fixed charges can be brought about in all types of reorganization through the cancellation of burdensome leases and operating contracts. Unremunerative leases have been, throughout all railroad history, a considerable factor in the explanation of financial misfortunes. Of the 25 leased lines belonging to the old Wabash system at the time of its failure in 1884, only three were meeting their expenses. For a period of six months following the receivership the deficit on the 22 amounted to over $1,000,000, while the profit on the other three—including the very valuable Chicago division—amounted to only $100,000.[28] Other instances of a similar nature can be found in the history of early reorganizations.[p] And even within recent years the specific cause of many railroad failures has been the weight of burdensome leases. The receivership of the St. Louis and San Francisco Railroad in 1913 was largely due to the overpowering burden of the Chicago and Eastern Illinois lease. Similarly the receivership of the Toledo, St. Louis and Western Railroad in the following year came, in no small measure, from the guarantees involved in the acquisition of a controlling interest in the Chicago and Alton.

At the time of receivership the court or its receiver may determine which of the various leases, almost invariably a

---

[p] The first notable case of American railroad receivership was that of the Vermont Central in 1855, brought about by the fact that the road had leased another, the Vermont and Canada, in 1850 at a conspicuously high rental. The case remained before the courts for 29 years owing to the difficulty of straightening out the rights of lessor and lessee.[29]

---

[28] 40 Chron. 427 (April 4, 1885).

[29] For further information, see Report of Joint Special Committee to Investigate Vermont Central Management, published at St. Albans, Vt., 1873. Brief summary of the legal difficulties, Thompson, "Court Management of Railroads," 27 Am. Law Rev., 491 (1893), where references are given to the Vermont court records covering the case. Also 23 Am. Rd. Jour. 665. This is a famous case from many points of view—legal, historical, economic, and social.

part of the growth of a great system, are to be retained.[q] This need not be done immediately.[r] But having determined to retain an old lease or contract and receive benefit from it the receiver cannot subsequently refuse to meet the charges.[33] In the earlier practice it was considered at least unwise, possibly transcending the power of the court, for the receiver to enter upon new leases in such a manner as to burden the property under his charge with new obligations. Latterly, however, owing to a more liberal interpretation of the powers or rather the obligations of efficient management that the receiver assumes, it is generally recognized that he may execute new and permanent leases if it seems to the interest of the railroad and

---

[q] It seems to be a well-established principle of law that the receiver may use his discretion as to which contracts he continues and which he repudiates. In an early decision, Wells, J., stated the position briefly. The receivers "may fulfil the contracts of the corporation so far as beneficial. They will not pay its debts, nor fulfil contracts which are burdensome or tend to diminish the value of the property in their control, unless such contracts are charged as encumbrances on the property or are necessary to its proper preservation and security."[30] This view is supported by Chief Justice Fuller, in the leading Wabash case,[31] who quoted with approval a rule laid down by the Supreme Court shortly before. "Upon taking possession of the property, he [the receiver] was entitled to a reasonable time to elect whether he would adopt this contract and make it his own, or whether he would insist upon the inability of the company to pay, and return the property in good order and condition paying, of course, the stipulated rental for it as long as he used it."[32]

[r] In the Chicago, Rock Island and Pacific Railway receivership of April, 1915, the court gave the receivers six months to determine which existing contracts and leases would be continued and which repudiated.

In rare instances a decision on an important contract must be reached almost immediately after the receivership, else the unity of the railway system will be jeopardized. Often a compromise is effected, which merely continues on a contract.

The St. Louis and San Francisco Railroad passed into the hands of receivers May 27, 1913. On October 1, 1913, an issue of $2,880,000 of the Ozark and Cherokee Central Railway First 5s fell due. These bonds had been assumed by the St. Louis and San Francisco in 1907, but the receiver declined to meet the principal.

Accordingly an agreement was consummated between the receivers of the St. Louis and San Francisco and a large majority of the bondholders. This provided: (1) the bondholders would not institute any foreclosure suit; (2) the receivers agreed to pay 5 per cent on the principal of the overdue bonds and to expend, in addition, $10,000 a month for improvements on the lines covered by the bonds.

---

[30] Ellis v. B. H. & E. R. Co., 107 Mass. 1, 28 (1871).

[31] 145 U. S. 90.

[32] S. O., etc., v. Wilson, 142 U. S. 313, 322 (1891).

[33] Cen. Tr. Co. v. Ohio C. R. Co., 23 Fed. 306 (1885). Apparently, although the lease is maintained, the receiver cannot be made to pay more than the net earnings of the leased property. 105 U. S. 278, 287 (1881); 198 Fed. 721, 730 (1912).

the public.[34] In all the more recent railroad receiverships, especially since that of the Baltimore and Ohio in the middle nineties, the receivers have canceled old leases and entered upon new ones with almost the same freedom as an ordinary railroad management elected by stockholders. And in the final plan of reorganization these acts of the receiver have to be fully considered. Quite often the new railroad management, in its turn, seeks to reassume the old leases repudiated by the receiver and repudiate those made by the receiver. For these reasons the statistics covering the saving in fixed charges through cancellation of leases are not as conclusive as might be presumed.

Examples of Canceled Leases.—Nevertheless, the cancellation of unproductive leases is an important gain in almost every reorganization. The leases of the St. Louis and San Francisco and Colorado Midland railroads, involving upwards of 1,400 miles of line, were repudiated in the Atchison reorganization of 1895. Had the lease of the former been retained, "the fixed charges of the Atchison system of 7,780 miles would have been increased from $7,000 to $9,000 per mile." [35] Similar large cancellations were made during or at the time of the Union and Northern Pacific receiverships.[36] On the other hand, it must be remembered that even though a lease may be unprofitable in itself the cancellation is sometimes a good deal more unprofitable. During the discussion following the receivership of the Boston and Maine, it was pointed out that the fundamental trouble with the road lay in its burdensome leases. Although this was true, certain of its subsidiaries, notably the Fitchburg, would be a great menace to the road if owned by a competing line. The inroad into Boston and Maine's earnings, if, for instance, the Fitchburg had been leased to the Delaware and Hudson or to the Erie Railroad, would have far exceeded the possible deficit involved by a continuation of the old lease.

---

[34] Farmers Loan & Tr. Co. v. Easton, 114 Fed. 14 (1902).

[35] 1896 At. Top. & San. Fé An. Rep.

[36] According to Daggett, the reduction in money rentals for the Union Pacific reorganization amounted to 88.9 per cent and for the Northern Pacific 78.2 per cent Daggett, S., Railroad Reorganization, 370 (1908).

It is difficult to say to what extent the net fixed charges of railroads have been decreased through the cancellation of leases and traffic contracts at the time of reorganization. Mead estimates that for the reorganizations of the middle nineties these reductions amounted to nearly $25,000,000.[s] This estimate was undoubtedly too large. Furthermore the reduction, in many cases, is more apparent than real, because the leased line possesses an inherent earning capacity which has partially, if not entirely, met the rentals. If the earnings have been more than sufficient to meet the charges, then a cancellation, in spite of the nominal reduction in fixed charges, would stand for real reduction in net earnings. Because of this important fact, and because unprofitable leased lines are strategically necessary for the parent road, it is common for subsidiary roads leased prior to the receivership, to be consolidated with the parent road at the time of the reorganization, after which their charges become partially or entirely bond interest instead of rentals. In these cases, the net results to the road in reduction of fixed charges may be slight, although the apparent reduction in leased line rentals is very large.[t]

---

[s] The sources and basis of computation for this estimate are not disclosed. Mead says: "The owners of the leased line have no choice but to accede to the propositions of the reorganization committee for a reduction of charges. . . . The extent of the reduction in rentals from reorganization is seen when the reduction of this item of fixed charges for the entire country is considered. The net reduction in lease rentals from 1892 to 1898 was $24,527,000, and of this sum $17,768,000 appeared in the South and West, where the failures were more numerous and extensive. The reduction of rentals was most conspicuous in the Northwest and Pacific Coast railroads. It is true that a part of this decrease in rentals is to be ascribed to the steady movement in the direction of consolidation which is constantly converting lease into purchase, but coming so close together, the difference between the figures of 1892 and those of 1898 is sufficiently marked to warrant the conclusion that most of the reduction is due to the numerous reorganizations which intervened."[37]

[t] For instance, in the Erie reorganization of 1895 there was, according to Daggett, a net reduction of rentals of 62.7 per cent, but this was largely offset by an increase of 33.3 per cent in net interest charges.[38]

As an actual fact, a leased line which has never earned its rentals was acquired through the issue of prior lien bonds covering the entire system. The carrying charges on the bonds given in exchange actually

---

[37] Mead, E. S., "The Reorganization of Railroads," 17 An. Am. Ac. Pol. Soc. Sci. 228 (1901).

[38] Daggett, S., Railroad Reorganization, 370 (1908).

This circumstance is brought out by Daggett's studies of the reorganizations of the middle nineties,[u] and it has been more or less apparent in all contemporary reorganizations involving the treatment of leased lines. It is of advantage, undoubtedly, in promoting the organic unity of the system, but it makes more difficult the separation of unprofitable branch and subsidiary lines.

Voluntary Reorganization.—The principles laid down in this chapter thus far concerning the reduction in fixed charges apply to voluntary as well as involuntary reorganizations, but with much less force. The cases have been so few that even an approximate conclusion based on reliable statistics is out of the question. Furthermore, the statistics covering voluntary reorganizations alone are not of great significance because of the shadowy lines of classification. What to one man is an unimportant capital readjustment is to another an important voluntary reorganization. Suffice it to say, however, that most reorganizations of the true voluntary form differ in no radical and significant characteristics from one or another of the involuntary types heretofore described. The most striking difference, between the voluntary and involuntary types, has been the marked tendency to leniency toward bondholders. This was perhaps more obvious before 1900 than since. Certain it is, however, that, except for a few notable exceptions, the bonded debt—although not necessarily the fixed interest charges—was increased in all the voluntary reorganizations down to 1897. The fixed charges as a whole were probably somewhat lessened, although the small number of typical cases

---

exceeded the previous rentals.[39] Yet it must be remembered that this leased line was an absolutely necessary segment in the Erie's through Chicago line. Its absorption into the Erie system was in fact so necessary that the whole reorganization would have failed unless this link in the system had been acquired.

[u] The apparent reduction in rentals for seven cases chosen by Daggett is 58.8 per cent. But there was a conspicuous increase in interest charges on bonds issued to acquire the lines previously leased. Consequently the net decrease in fixed charges amounted to only 25 per cent.[40]

---

[39] Daggett, S., Railroad Reorganization, 60, 72 (1908).
[40] *Ibid.*, 370 (1908). See also note (z).

available for study makes any generalization of little value.[v] Since 1900 the data available hardly permit of even tentative generalizations.[w]

Summary Figures on Reorganizations.—We have, however, undertaken a general study of the effect of reorganization on the refunding of old issues into new issues—the effect on both the principal and the interest.[42] From a study of 21 of our larger and more important railroad reorganizations it was found that the total volume of fixed charge securities was reduced from approximately one and a half billions to less than a billion—such refunded securities being 63.4 per cent in principal amount of the corresponding securities before reorganization. The average rate of interest borne on the old securities was 4.75 per cent, on the new—taking into account those not bearing fixed charges—was 3.81 per cent. The total interest charge on the old securities amounted to $70,628,375; that on the corresponding securities after reorganization to $36,841,657. This was a reduction of 48 per cent. It represented about 80 per cent of the total reduction in fixed charges accomplished by the reorganizations. The remaining 20 per cent reduction was accomplished largely through cancellation of leases.[x]

---

[v] Meany's statistics. Poor's Manual of Railroads (1900) Introduction.

Using six of the most important voluntary reorganizations, it was found that the average decrease in fixed interest charges was 13 per cent, but of these six cases two showed a distinct increase. Decrease—Chesapeake and Ohio of 1888, Missouri, Kansas and Texas of 1890, the Reading of 1888 and the Atchison of 1889. Increase—the Reading of 1882, and the Baltimore and Ohio of 1898. The largest proportionate increase of any case coming to the writer's attention is that of a small road, the San Antonio and Aransas Pass, in which the increase amounted to upwards of 90 per cent.

[w] Of the later reorganizations studied by Daggett, four may be considered as voluntary. One, the Chicago Great Western, showed a radical increase in fixed interest-bearing securities. The other three showed a decrease.[41]

[x] The figures, taken from Kingman (*op. cit.*), may be of some interest. In the compilation extended and undisturbed issues were omitted from

---

[41] Daggett, S., "Recent Railroad Failures and Reorganizations," 32 Quart. Jour. Econ., 468 (May, 1918).

[42] Kingman, J. C., Recent Refunding Operations of Fifty American Railroads, Harvard Graduate School of Business Administration (1925).

x (*Cont'd*)

SUMMARY OF FORCED REFUNDING
(In thousands)

Name of Road	Date	Old Securities	Av. Rate	Old Interest	New Securities	Av. Rate	New Interest	Reduc. Interest	Total Reduc.
Atchison, Topeka & Santa Fé R.R.	July, 1895	$ 259,319	4.00	$ 8,573	$148,717	4.00	$ 3,880	$ 4,693	$ 5,008
Baltimore & Ohio R.R.	July 1, 1898	90,867	5.48	4,453	93,448	3.69	3,449	1,004	1,685
Baltimore & Ohio Southwestern R.R.	July 1, 1898	53,083	4.88	2,589	35,093	3.46	1,228	1,361	
Central R.R. & Banking Co. of Georgia	June, 1895	27,754	4.27	1,185	5,765	5.00	228	897	870
Chicago & Eastern Illinois R.R.	March 31, 1921	47,646	4.68	2,236	29,321	5.00	1,466	770	1,433
Chicago Great Western R.R.	August, 1892	28,711	4.83	1,387	none	....	none	1,387	1,138
Colorado & Southern Ry	January 11, 1899	24,649	5.35	1,321	15,543	4.00	622	699	621
Denver & Rio Grande R.R.	June 9, 1924	41,114	5.48	2,256	28,808	5.00	1,490	765	585
Erie	August 20, 1895	37,611	5.88	2,217	29,433	4.00	1,177	1,040	1,550
International & Great Northern R.R.	May 9, 1911	13,357	5.56	743	none	....	none	743	1,057
International & Great Northern Ry	June 1, 1922	23,529	5.97	1,405	11,521	6.00	691	714	418
Missouri, Kansas & Texas Ry	November 1, 1921	130,519	4.50	5,889	79,973	4.67	3,726	2,163	2,512
Missouri Pacific R.R.	July 1, 1915	124,910	4.86	6,065	91,322	4.52	4,122	1,943	3,319
Norfolk & Western R.R.	March 12, 1896	34,230	5.08	1,742	23,323	4.00	933	809	984
Northern Pacific R.R.	July, 1896	141,156	5.69	8,048	143,370	3.62	5,190	2,858	4,853
Pere Marquette R.R.	October 30, 1916	40,141	5.58	2,241	24,455	4.64	1,138	1,103	2,190
St. Louis & San Francisco R.R.	November 1, 1915	164,669	4.48	7,373	93,399	4.00	3,736	3,637	5,728
St. Louis Southwestern Ry	December 16, 1889	32,818	6.00	1,969	16,409	4.00	656	1,313	1,313
Union Pacific Ry	October 15, 1895	53,525	6.65	3,561	51,204	4.00	2,048	1,513	*767
Wabash R.R.	May 1, 1915	40,600	4.00	1,624	none	....	none	1,624	2,611
Western Pacific R.R.	July, 1916	75,000	5.00	3,750	20,000	5.00	1,000	2,750	3,700
Totals	....	$1,486,226	4.75	$70,628	$941,104	3.81	$36,842	$33,787	$42,343

* Minimum; see plan.

Treatment of Junior Securities.—It is very difficult to draw broad generalizations concerning railroad reorganizations in general because of the marked difference in treatment of securities according as we are dealing with reorganizations of the first, second or third class. Nevertheless, an attempt was made to study the treatment of junior security holders in railroad reorganizations from 1913 down to 1924—large and small, important and unimportant.[43] In all there were 46 cases.[44] The treatment of the common stock is clear from this table:

	No. Cases	Percentage of All
New securities—given without assessment	5	11%
Optional assessment	2	4
Assessments	10	22
Extinguished	29	63
	46	100%

Practically all the cases in which the common stock was eliminated belonged to Class III, whereas the common shareholders were admitted to some slight ownership of the equity of the new company in practically all the Class I and Class II reorganizations.

Effect on Total Capitalization.—It has been pointed out by all the writers on railroad finance, that every railroad reorganization, at least until the last few years, involved an increase in the nominal amount of securities.[y] The reason was that in order to induce the holders of junior bonds and stock to

---

consideration. Also securities sold for new money, or incidental to obtaining new money, were omitted. These 21 railroad reorganizations represent a random selection of the larger, more significant railroad reorganizations of the last thirty-five years.

[y] Probably stated first in the form of a general principle of reorganization procedure as far back as 1890 by Simon Sterne in a periodical article entitled "Railway Reorganization."[45] In some form or other it has been repeated by practically every financial writer on railway reorganizations down to within the last five or six years. For statistical studies, see note (z).

---

[43] Rutherford, G. H. and Hageman, H. C., An Analysis of The Treatment of Common Stockholders in Post-War Reorganizations. Harvard Graduate School of Business Administration (1925).

[44] Omitting certain cases of foreign railroads reorganized in New York.

[45] 10 Forum 44 (1890).

undergo sacrifices, they must be placated by liberal bonuses of well-nigh worthless junior securities of the new road. "As a result of the shifting of securities the majority of railway companies emerged from reorganization burdened by an increase in capitalization. . . . Reorganization acted as a drug to tide over a period of weakness—the future was mortgaged to satisfy the present.[46] This view, perfectly justified by the data available from all the railroad reorganizations down to 1912[z] is not true of contemporary reorganizations.[aa] The

---

[z] The most inclusive study is that of Meany, dealing with a list of 313 cases of railroad reorganizations between 1884 and 1900.[47] Detailed computations supporting the figures in this note are to be found there. Meany believed that his list comprised all the completed reorganizations during the period. Of the entire number, 297 represented involuntary reorganizations. Taking into consideration a slight increase of railroad mileage, we may safely conclude, from these figures, that there was a decrease of at least 18 per cent in the bonded debt. The actual decrease in fixed charge securities was considerably greater, since Meany included the income bonds in the bonded debt. On a mileage basis the bonded debt fell from $39,600 per mile to $34,200 per mile, allowing for the changes in the length of line. On the other hand, the stock showed an increase of 17 per cent, rising from $31,700 per mile before reorganization to $38,000 after reorganization. Altogether the total capitalization showed an increase of a little less than 4 per cent, or less than $3,000 per mile. If the involuntary reorganizations alone are considered, the reduction in the bonded debt is more marked, but in other respects the results are approximately the same.

In addition to this general study Meany investigated two random selections of reorganizations; one comprised 57 involuntary reorganizations, the other included 68 cases, a few of which were important voluntary reorganizations. With the former there was shown a reduction of 33 per cent in the total bonded debt and an increase of 29 per cent in capital stock. In the second collection of cases, the fixed charge securities and the stocks were not shown separately, but the total capitalization showed an increase of approximately 12½ per cent.

These statistics of Meany do not conform to those obtained by Daggett. Using 7 selected cases of reorganizations since 1893, Daggett discovered a reduction in bonded debt of only 4 per cent, while 7 cases of earlier reorganizations showed an actual increase of 22 per cent. His table does not permit a separation of the involuntary from the voluntary. Daggett also found an average increase of total capitalization of 30 per cent for 6 involuntary reorganizations after 1893.[48] Apparently Meany's cases show a conspicuous decrease in bonds with less change in total capitalization, whereas Daggett's show little change in bonded debt and a marked increase in net capitalization. Daggett's cases are probably too few to be of general value, whereas the complete list of Meany's 313 cases included too many insignificant local reorganizations to be of general significance. Considering the diversity and care of selection, the results shown by tendency since 1910 has been to so plan reorganizations as to effect a reduction rather than an increase of the net capitalization. Especially is this true if the old floating debt, which is funded by the reorganization, is included in the computation. The temptation to issue excessive amounts of junior securities no longer exerts a malign influence. The state railroad commissions have not countenanced the unbridled issue of junior securities, stockholders show a more intelligent discrimination between nominal and real value, and the era of railway promotion, with its exaggerated promises of future earnings, has passed. The railroad business is fighting now to retain what earnings it has; it no longer cuts its financial pattern according to the fabulous earnings of an unattainable future prosperity.

---

[46] Dewing, A. S., "The Position of Income Bonds as Illustrated by Those of the Central of Georgia Railway," 25 Quart. Jour. Econ., 396 (1911).

[47] This study was printed at length as a part of the introductory matter to the 1900 edition of Poor's Manual of Railroads.

[48] Daggett, S., Railroad Reorganization, 363, 373 (1908).

Meany's 57 cases are probably the most reliable evidence we have. This compilation and that of Daggett agree in concluding that the total net capitalization was increased 30 per cent.

[aa] For example, the old capitalization of the Pere Marquette Railroad, prior to the reorganization of 1915, was $113,500,000 not including the overdue interest. The reorganized Pere Marquette Railway was capitalized, altogether, for $105,000,000 and this included the new money paid in at the time. This is the typical Class I reorganization used in the previous analyses.

In a recent study Daggett compared the total outstanding securities in 15 reorganizations.[49] He found that the net capitalization was increased in 7 and decreased in 8 of the cases. The total capitalization of all the roads considered decreased less than 2 per cent. The most marked increases were represented by the voluntary reorganization of the Seaboard Air Line and the involuntary reorganization of the St. Louis and San Francisco. One may hazard the guess, however, that if the floating debt and subsidiary capitalization had been figured a little differently, the difference would not have been so marked. For example, the Missouri Public Service Commission[50] reproduced the estimate of total net capitalization of the St. Louis and San Francisco given in the reorganization plan of November 1, 1915 (pages 30 and 31). Here it was shown that the reorganization effected a reduction in total net capitalization from over $350,000,000 to less than $330,000,000. The great difficulty with all reorganization statistics is to distinguish the items which should be included from those which should not be.

---

[49] Daggett, S., "Recent Railroad Failures and Reorganizations," 32 Quart. Jour. Econ., 469 (May, 1918).

[50] Case 815, opinion and order, dated Dec. 22, 1915, page 22.

CHAPTER VII

TRACTION REORGANIZATIONS

Similar to Railroad Reorganizations.—A study of the plans followed in the reorganization of traction companies is profitable more because of the number of cases available than from any peculiar methods or expedients followed. In most respects a detailed examination of traction reorganization plans brings to light little that cannot be gleaned from a study of railroad reorganizations. In fact the procedure and the plans for the reorganization of a large complexly organized urban traction company differ but little from the corresponding feature of a great steam railroad reorganization; and the characteristics of a small street railway reorganization bear a close resemblance to the corresponding features of a small railroad. That is, the similarities among public utility reorganizations pertain more to the size, the business and the intricacy of the financial structure than to the nature of the utility. Nevertheless, because of the great number of receiverships, bankruptcy sales and reorganizations of tractions an examination of these utilities, as a group, is perhaps worthwhile.

Causes of Financial Distress of Street Railways.—There is no hidden or perplexing reason to explain the almost complete financial distress of the street railway industry. A governmental commission, in a verbose and somewhat uncritical report to the President of the United States [1] develops some twenty-two theses pertaining to the industry—present, past, and future.[a] Yet perhaps the fundamental cause was overlooked because of attention to the obvious and superficial facts.

---

[1] Report of the Federal Electric Railway Commission to the President of the United States, May 15, 1919.

---

[a] These theses, in somewhat abbreviated form, are as follows:

REPORT OF THE FEDERAL ELECTRIC RAILWAYS COMMISSION TO THE PRESIDENT OF THE UNITED STATES, MAY 15, 1919
CONCLUSIONS AND RECOMMENDATIONS

I. The electric railway . . . is an essential public utility, and should have the sympathetic understanding and cooperation of the public if it is to continue to perform a useful public service.

II. The electric railway (is) . . . a public utility subject to public control as to the extent and character of the service it renders and as to the rates it charges for such service.

III. It is of the highest importance that both the total cost of the service and the cost to the individuals who use it shall be kept as low as possible without injustice to those who take part in producing it.

IV. The electric railway industry, as it now exists, is without financial credit, and is not properly performing its public function.

V. This condition is the result of early mismanagement and economic causes, accentuated by existing high price levels of labor and materials, and of the failure of the uniform unit fare of five cents prescribed either by statute or by local franchise ordinances or contracts to provide the necessary revenues to pay operating costs and to maintain the property upon a reasonable basis.

VI. The industry can be restored to a normal basis only by the introduction of economies in operation, improving its tracks, equipment and service, and securing a reasonable return upon the fair value of its property used in the public service when honestly and efficiently managed.

VII. The electric railways must expand to meet the growing needs of their communities; therefore, the first essential is to restore credit in order to obtain necessary new capital for the extension and improvement of service.

VIII. Restoration of credit involves a readjustment of relations which will remove public antagonism, provide public cooperation, and insure to the investor the integrity of his investment and a fair rate of return thereon.

IX. Effective public cooperation should be exercised by eliminating, in so far as it is practicable, special assessments for sprinkling, paving, and for the construction and maintenance of bridges which are used by the public for highway purposes.

X. Extensions into new territory resulting in special benefits to the property in that vicinity should be paid for by assessments on such property in proportion to the benefits received, and that the amount of such assessments should not be added to the physical value of the corporate property.

XI. The great increase in the use of private automobiles, the jitney and motor busses, has introduced a serious, although not a fatal competition to the electric railway. These forms of public motor conveyance when operated as public carriers should properly be subject to equivalent regulatory provisions.

XII. The full cooperation of labor is essential to the highest prosperity and usefulness of the industry. The employees engaged in this occupation should have a living wage and humane hours of labor and working conditions. They should have the right to deal collectively with their employers, through committees or representatives of their own selection. All labor disputes should be settled voluntarily or by arbitra-

For underlying the whole electric traction industry is this simple outstanding fact—the trend of economic development of society has steadily set against traction transportation to such an extent that the rate of demand has fallen short of the rate of demand for other services and commodities, while the cost of meeting this relatively diminishing demand has increased with the increase of prices of commodities in general. In certain areas, especially the congested areas of large cities,

---

tion, and the award of such a board should be final and binding upon both parties. It is intolerable that the transportation service of a city should be subject to occasional paralysis, whether by strikes or by lockouts.

XIII. A private industry should not be subsidized by public funds, unless it is imperatively necessary for the preservation of an essential service, and then only as an emergency measure.

XIV. Unless the usefulness of the electric railways is to be sacrificed, public control must be flexible enough to enable them to secure sufficient revenues to pay the entire cost of the service rendered, including the necessary cost of both capital and labor.

XV. There can be no satisfactory solution of the electric railway problem which does not include the fair valuation of the property employed in the public service, and where that is done, the companies should voluntarily reduce any excessive capitalization to the basis of such value.

XVI. There is no insuperable objection to a large, wide-awake city having exclusive jurisdiction over the rates and services of public utilities.

XVII. The necessity for scientific and successful regulation of systems, whether large or small, and especially those which operate through several cities and villages in a rural territory, leads to the conclusion that local regulation should generally be subject to the superior authority of the State, whether as a matter of original jurisdiction or through the medium of appeal.

XVIII. Cost-of-service contracts are in the experimental stage, but where tried, they seem to have secured a fair return upon capital, established credit and reasonably satisfactory public service. Such contracts may safely be entered into where the public right eventually to acquire the property is safeguarded.

XIX. The right of the public to own and operate public utilities should be recognized, and legal obstacles in the way of its exercise should be removed.

XX. While eventually it might become expedient for the public to own and operate electric railways, there is nothing in the experience thus far obtained in this country which will result in better or cheaper service than privately operated utilities could afford if properly regulated.

XXI. Public ownership and operation of local transportation systems, whether or not it be considered ultimately desirable, is now, because of constitutional and statutory prohibitions, financial and legal obstacles, and present degree of responsibility of our local governments, and the state of public opinion, practicable in so few instances, that private ownership and operation must as a general rule be continued for an extended period.

XXII. If the reforms incident to public regulation which we suggest in this report should result in making private ownership satisfactory to the public, such reforms should at least enable public ownership to be established upon a just and equitable basis.

the demand for electric transportation may have kept pace with the increase in the density of population, but to meet this increasing demand the traction companies were confronted with the operation of the law of diminshing returns. So that even here, where they could maintain the demand, the managers of urban tractions found a more than proportionate increase in the cost of supplying this demand. The opposition to and prejudice of the public against increased fares made it difficult for the urban traction managers to obtain a gross revenue that increased in proportion to the increased cost of supplying the demand for the services. In rural districts even the theoretical possibility of meeting the increased costs of operation by increased fares was frustrated by the simple economic law that rising fares would still further diminish the demand, so that the aggregate gross revenue became smaller the higher the fare.

Low Order of Entrepreneur Ability.—To meet these adverse economic conditions there was required entrepreneur ability of the highest order. This the traction industry did not possess. Because of long years of regulation and routine operation, the various managements from the major executives down to the subordinate superintendents had lost all power of initiative, resourcefulness and power of invention. Their industry was changing before their eyes. Like an old man confronted with a new environment, they could neither change their habits of mind nor control the forces which held them powerless in their grip. All they could do was to wail and complain. When business men are confronted with problems too great for their comprehension their first complaint is against the government, or that part of it which has seemingly thrust itself between them and prosperity. In this case it was the Commissions. Although the State Commissions were slow to permit increased fares at first, the predicament into which the whole traction industry was thrown brought them to a realization that, so far as human relief was possible, it should be rendered. But after the traction companies had obtained consent for almost unlimited increases of fares, their financial plight was but little improved. Commissions could increase fares, but they could not force people to ride or reduce the wages of employees. The malady affecting the industry was forced upon it by economic law, not human law, and its cure must come from within the industry. This power of self-cure was exactly what the industry lacked.

Traction Company Receiverships.—The almost universal distress of the industry is indicated by a few facts. Although receiverships of traction companies had been common from 1908 down to 1914, they increased rapidly with the rising prices during and after the Great War, until finally in 1921 upwards of a tenth of the roads operating in the country were in the hands of receivers. These roads involved nearly a billion dollars of securities, and were scattered all over the United States.[b] In 1919 all the street railways of the whole state of Connecticut were insolvent.[2] The traction systems of every one of the large cities of the United States, with the single exception of Philadelphia, have been, at one or more times in their recent history, in serious financial distress. As late as

---

[b] The Electric Railway Journal publishes, in January, statistics of receiverships. They are illuminating and indicate the continued chronic difficulties besetting the industry.

Receivership Statistics

Year	Total Roads	Roads in Rec.	Total Miles	Miles in Rec.	% of Roads	% of Miles
1919	841	84	47,941	4,791	9.98	9.99
1920	831	91	47,705	5,330	10.95	11.17
1921	838	90	47,555	5,449	10.74	11.45
1922	827	85	47,150	5,551	10.28	11.75
1923	821	63	47,283	4,008	7.67	8.49
1924	769	63	46,837	3,670	8.20	7.83

Year	Stock Involved	Bonds Involved	Receiver's Certificates
1919	$263,852,224	$456,097,317	$27,686,434
1920	280,456,935	514,080,197	28,892,162
1921	337,056,074	565,400,554	31,125,125
1922	346,618,057	552,614,966	25,272,921
1923	166,409,030	324,607,586	11,192,788
1924	131,793,085	244,858,677	8,165,250

Average ratio of stock to total securities above: 36.6%.
Average ratio of bonds to total securities above: 64.4%.
Source: *Electric Railway Journal*, first of second week of January, annually.

---

[2] With the exception of 12.8 miles.

1925 it could be said that with the single exception of the New Bedford Street Railway—which seems to have been managed with very remarkable skill and resourcefulness—no traction in all of the New England States could be called a successful enterprise entitled, by its operating statement, to enlist further investments of capital.

Study of Traction Receiverships.—As a result of all this financial distress it would be presumed that traction companies would afford a fertile ground for the study of reorganization plans. This is true. Probably no other single industry affords such a wealth of material capable of systematic treatment. In order to ascertain whether or not there were general principles governing traction reorganizations an exhaustive statistical study was undertaken of 96 traction reorganization plans consummated between 1900 and 1925. This collection included a random selection of plans, chosen without reference to size, importance of the enterprise, geographical distribution, severity of failure, or the resulting treatment of security holders.[3] As a whole, therefore, the group gives a fairly accurate picture of the actual treatment of holders of various classes of traction securities at times of financial distress.

Taken as a whole the results are not dissimilar from those resulting from the reorganization of steam railways. This is clear from the following table indicating, in summary form, the old and the new capitalization of those companies for which complete data was available.

	Old	New	New to Old
Bonds	$498,941,212	$344,160,038	68.8%
Preferred stock	91,392,605	176,267,529	192.8%
Common stock	390,674,123	254,309,027	65.1%
Total	$981,007,940	$773,836,694	78.9%
Interest on bonds	$ 25,444,563	$ 18,029,790	70.86%
Average interest rate on individual security issues	5.0997	5.2525	
Increase in rate per centum			0.1528%

---

[3] Study of John C. Kingman, Harvard Graduate School of Business Administration (1925). Data collected from published sources—for the most part the summary statements in the *Commercial and Financial Chronicle*, *Electric Railway Journal* and the *Manuals*. In some cases the original plans sent to security holders were consulted.

The only important difference, observable from this table, as compared with a similar table for steam railways, is that the new outstanding common stock has been decreased, whereas it has been the almost universal practice to increase the common stock of steam railways at the time of reorganization. This difference is to be explained by the fact that the common—and often the preferred stocks as well—of operating traction companies received scant consideration at the hands of the reorganization managers. In fact in 55 out of the 96 reorganization plans studied the old common stock was eliminated without, in the vast majority of cases, even the scant consideration of an assessment.

Simple Type of Reorganization.—Turning now to a more detailed study of these ninety-six plans it is apparent that there are two general forms, with an intermediate zone. One type, applying particularly to serious failures of companies with a relatively simple financial structure, involved merely the refunding of an issue of bonds into stock and the complete elimination of the previously existing stock. The other type, applying to companies with a complex financial structure involved a rather intricate weighing of relative values among the various classes of old securities and the apportionment of the new securities according to this scheme of valuation. Such reorganization plans are apt to be fully as complicated as the reorganization plans of large railway systems.

Of the simple type perhaps the very simplest plan of reorganization is that of the Columbus, Marion and Bucyrus Electric Railway (Ohio) in 1914.[4] The old corporation had $250,000 first mortgage bonds and an issue of stock. The plan involved merely the sale of the corporation, under a court order, to a new corporation which gave equal par value of new common stock for the old bonds. The old common stock was ignored. Such a plan is perhaps the very simplest that could be proposed. The old bondholders merely take over the property and issue to themselves stock instead of bonds.

---

[4] 96 Chron. 1488 (1914).

Of the same general type, but slightly more involved, was the reorganization of the Brockton and Plymouth Street Railway (Massachusetts) in 1922.[5] In this case the old first mortgage bonds took half of their old par value in new first mortgage bonds, half in new income bonds, and half in new common stock. As the old bonds bore 4½ per cent interest and the new bonds 6 per cent—both issues—the old bondholders would get a larger income than before, if the earnings of the reorganized company proved large. The old demand notes and preferred stock were refunded into new common stock and the old common stock was extinguished. As in the former case, this reorganization illustrates merely the taking over of the financial control of the company by the bondholders—a procedure analogous to the foreclosure of a mortgage on a dwelling house and its acquisition by the mortgagee. It bears a close resemblance to the reorganization of the small railroads—called in the preceding chapter Class III reorganizations—in that it follows upon a severe failure of a small corporation having a simple and easily controlled form of capitalization.

Complex Type of Reorganization.—In contrast to this simple type are those traction reorganization plans which deal with very complex financial structures. A relatively simple form of this type is illustrated by the reorganization of the Atlantic Shore Railway (Maine) in 1923.[6] This little corporation and its predecessors, had been, for upward of twenty years, continuously in distress—in and out of the hands of receivers. The plan proposed the distribution of new first mortgage bonds, new income bonds, new preferred and common stocks among six claims of old bondholders according to the equities of the various mortgage issues. As a result a complex funded debt of one and three quarters million dollars was reduced to less than half a million dollars—all of a single issue—while the fixed charges were reduced from $81,000 to $23,000. Whatever stocks previously existed were extinguished and the new stocks were distributed among the old bondholders.[c]

---

[5] 115 Chron. 644 (1922).
[6] 116 Chron. 615 (1923).

A more complicated plan, analogous to the reorganization of a great railway with a variety of underlying liens, was the Fort Wayne and Northern Indiana Traction Company reorganization of 1919.

Existing Securities	New First and Refunding 5s	Adjustment Mortgage 5s	7% Preferred Stock	Common Stock
To $29,000 Fort Wayne Traction Co. First 4s.	(No De	fault. To re	main undist	urbed.)
To $57,000 Fort Wayne Power Co. First 5s...	(No De	fault. To re	main undist	urbed.)
To $400,000 Fort Wayne, Marion & Bluffton Traction Co. First 5s....................	(No De	fault. To re	main undist	urbed.)
To $6,966,000 Fort Wayne & Wabash Valley First Mortgage 5s.......................	$3,483,000 (50%)	$3,483,000 (50%)	....	....
To $275,000 Wabash River Traction Co. First Mortgage 5s...........................	275,000 (100%)	....	....	....
To $849,000 Lafayette & Logansport First Mortgage 5s................................	339,600 (40%)	339,600 (40%)	169,800 (20%)	....
To $3,000,000 Fort Wayne and Northern Indiana General Mortgage 5s.....................	360,000 (12%)	750,000 (25%)	1,890,000 (63%)	....
To $2,500,000 Preferred Stock................	....	225,000 (9%)	100,000 (4%)	1,600,000 (64%)
To $4,000,000 Common Stock................	....	....	....	400,000 (10%)
Reserved for undisturbed bonds (100%).......	486,700	....	....	....
Reserved for issue by committee or treasury of new company..........................	405,700	192,250	297,750	287,750
Total present authorized issue...........	$5,350,000	$5,000,000	$2,500,000	$2,500,000

An examination of such a plan as this indicated clearly that the various protective committees, as in the case of a complicated railroad reorganization, tried to weigh the relative parts of the system covered by the divisional liens and apportion the new securities according to their judgment of relative values. It is clear from an examination of the 96 plans studied—of which about two-fifths were of the simple type, about two-fifths of the complicated type and the remainder intermediate forms—that the more complicated the financial structure of the traction company the more nearly its reorganization comes to one of the recognized types of railway reorganizations.

---

[c] The plan in detail is given in Poor's Manual of Public Utilities, page 2433.

Treatment of Junior Securities.—Turning now to a study of these 96 cases as a group, some interesting conclusions may be drawn. Perhaps the most striking is the almost universal extinction of the interests of the old common stock without even a chance of possible salvage through the payment of an assessment. Leaving out 9 of the 96 cases, where the common stock was owned by a holding company, in 55 of the remaining 87 cases the junior securities were completely ignored. In the remaining 32 cases, the common stockholders in 13 were offered the privilege, if such it could be called, of paying an assessment and receiving securities of less value than the assessment. A summary statement of the treatment of the junior securities in these 87 cases is interesting.

25 cases (in which the old corporation had no preferred stock), the common stock was extinguished.

20 cases (in which the old corporation had both common and preferred stock), all of the common and preferred stock was extinguished.

6 cases (in which common, preferred stock and one or more issues of debt existed), all the stocks and at least one, and usually more classes of debt, were extinguished.

4 cases (in which the common stock was extinguished), but one or more issues of preferred shares were given an opportunity to participate in the reorganization by paying an assessment.

13 cases (in which the common or common and preferred shareholders were given an opportunity to participate in the reorganization by paying an assessment), the value of the new securities were certainly worth, in the market, less than the assessment.

19 cases (in which the common stock was undisturbed or new securities given for the common stock without assessment, or when the assessment was levied on the common shares), the new securities were certainly worth more than the assessment. This was the class of cases in which the common stockholders salvaged something from the reorganization.

It is probable that the small participation of the common shareholders in traction reorganizations is explained by the severity of the failures. Usually the traction company keeps going, notwithstanding the rising operating costs and declining margin of net earnings, until successive yearly deficits in meeting the bond interest has shown conclusively that the road is not worth its bonded debt—much less its stocks. In other words, the increasing annual deficits have convinced all concerned that nothing of present or future value remains to the stockholders; consequently, when the reorganization is finally brought about the bondholders take over the property. Nor can they hope to conjure any new money out of the stockholders because the latter have long since given up any hope in their property. The stockholders are ignored, as apparently, they expect to be.

Treatment of the Higher Classes of Securities.—It is possible with all the data of these 96 cases before us to draw certain approximate generalizations—or more usual treatments—concerning the preferred or higher classes of securities. For purposes of statistical study we may divide all the old securities above the common stock into four classes. The first class comprises the numerous underlying and subsidiary issues of bonds, some of which are strategically better placed than the general first mortgages and some less so. The second class comprises the first mortgage issues covering all, or substantially all of the system. The third class comprises the junior issues—the second mortgage, the refunding, and the debenture bonds. The fourth class comprises the preferred stocks. The following tables illustrate the results of the compilation. The study, of course, is one of issues, not of reorganizations.[7]

SUBSIDIARY AND UNDERLYING ISSUES:

(Total Number of Issues Considered 108)

25 issues undisturbed.

55 issues refunded but with essentially same principal; 15 same interest; 7 same security.

---

[7] The previous summaries referred to separate reorganization plans.

16 issues refunded but with increased principal; 32 increased interest; 0 increased security.

7 issues refunded but with reduced principal; 31 reduced interest; 71 reduced security.

5 issues extinguished.

First Mortgage Bonds:

(Total Number of Issues Considered 67)

12 issues undisturbed.

22 issues refunded but with essentially same principal; 12 same interest; 15 same security.

23 issues refunded but with increased principal; 12 increased principal; 0 increased security.

10 issues refunded but with reduced principal; 31 reduced interest; 40 reduced security.

0 issues extinguished.

Junior Bonds:

(Total Number of Issues Considered 46)

7 issues were undisturbed.

18 issues refunded but with essentially same principal; 3 same interest; 2 same security.

4 issues refunded but with increased principal; 9 increased interest; 1 increased security.

14 issues refunded but with reduced principal; 24 reduced interest; 33 reduced security.

3 issues extinguished.

Preferred Shares:

(Total Number of Issues Considered 54)

0 undisturbed.

9 issues refunded with essentially the same principal; 13 same interest; 11 same security.

4 issues refunded but with increased principal; 1 increased interest; 1 increased security.

13 issues refunded but with reduced principal; 12 reduced interest; 14 reduced security.

28 issues extinguished.

Common Shares:

(Total Number of Issues Considered 111, including common stocks of subsidiaries)

11 issues undisturbed.

4 issues refunded but with essentially the same principal; 36 same position.

7 issues refunded but with increased principal (mostly after assessment); 17 increased security.
31 issues refunded but with reduced principal (usually after assessment).
58 issues extinguished.

Failure to Meet Operating Expenses.—After this lamentable showing made by traction securities at the time of reorganization, it may be of interest to hear what happens—and the cases are not unusual—when the bankrupt property fails to meet even its operating expenses. In some cases an old franchise or public conditions require that the line be operated. This is true, if the traction company is bound up by stock control or otherwise with the local lighting company. In other cases, hope springing eternal in the breast of traction managers, the line is kept going by the reorganizers, with the same continuing losses. Finally there are numerous instances in which the road is abandoned as a traction company and its property is sold for junk. An examination of 16 cases shows that about $3,000 per mile, average, is to be expected as "scrap value." [d]

---

[d] Scrap Values

Name of Road	Year	Sales Price	Miles	Per Mi.
Lancaster & Southern Street Ry.	1916	20,575	7.35	$ 2,800 [8]
St. Louis, Lakewood & Grant Park Ry.	1918	20,527	10.00	2,053 [9]
Ware & Brookfield Street Ry.	1918	51,000	11.71	4,350 [10]
Parkersburg & Ohio Valley R.R.	1919	16,000	5.00	3,200 [11]
Swansea & Seekonk Street Ry.	1919	26,250	10.12	2,590 [12]
Pennsylvania & Ohio R.R.	1919	46,115	23.00	2,005 [13]
Shore Line Electric Ry. (Norwich, Conn.)	1920	340,000	50.00	6,800 [14]
Plymouth & Sandwich Street Ry.	1920	55,200	17.80	3,100 [15]
Valdosta, Moultrie & Western R.R.	1921	87,000	42.00	2,070 [16]
Cleveland & Erie Ry.	1922	76,000	28.00	2,710 [17]
Monmouth County Electric Co. (built in 1897 at a cost of $1,000,000). Cars alone scrapped at $100 to $500 each.				
Springfield (Ohio) Terminal Ry. & Power Co.	1922	87,000	30.00	2,900 [18]
Asheville & East Tennessee Ry.	1922	15,500	8.70	1,782 [19]
Dayton, Toledo & Chicago Ry.	1923	210,000	90.00	2,332 [20]
Chicago, Aurora & DeKalb R.R.	1923	90,000	28.00	3,215 [21]
Ensley Southern Ry.	1924	18,122	4.00	4,530 [22]
Sandusky, Norwalk & Mansfield Electric Ry.*	1924	53,800	32.50	1,655 [23]
		$1,213,089	398.18	Average $ 3,047

* This line had been previously sold in 1920, ostensibly for scrap, but the purchaser had attempted to operate it. In 1920 it brought $175,000 or $5,380 per mile.

Except where noted otherwise, these scrap values include the entire system wire, rails and equipment.

[8] 103 Chron. 666
[9] 106 Chron. 1901
[10] 106 Chron. 1797
[11] 108 Chron. 2434
[12] 109 Chron. 1893
[13] 109 Chron. 776
[14] 55 El. Ry. Jour. 542
[15] 56 El. Ry. Jour. 290
[16] 112 Chron. 2085
[17] 115 Chron. 1428
[18] 1922 Poor 's Man. 1276
[19] 115 Chron. 2045
[20] 116 Chron. 822
[21] 117 Chron. 1555
[22] 119 Chron. 810
[23] 118 Chron. 2042

CHAPTER VIII

INDUSTRIAL REORGANIZATION

Importance of Working Capital.—Industrial enterprises differ from all types of public utility corporations, among other respects, in the simple fact that they require a comparatively large amount of quick assets to enable them to exist. A railroad or an electric power company could start in business with nothing but its physical plant—not even money for its payroll—and prosper. No industrial could do this; a dearth of working capital results in the paralysis of its operations.

Barring exceptional cases of bad management, downright dishonesty or a great catastrophe an industrial does not fail except from causes which destroy its inherent earning capacity; it never fails for want of working capital. The dissipation of working capital, deflation of inventories and the sudden reversion of the industrial cycle are not of themselves sufficient to cause the failure of a railroad or utility. Yet any one of these causes, notwithstanding a continued inherent earning capacity, might cause a failure of an industrial enterprise. Consequently we cannot be so dogmatic or categorical in our statement of the causes of industrial failures as the facts permit us to be in discussing public utility failures. Consequently, too, the underlying principles of industrial reorganization cannot be fitted into moulds so clear and well rounded.

Nevertheless, because of the importance of working capital to the continued success of industrials, the reorganization resulting from a crisis caused by continued lack of working capital may differ in form and execution from one following a failure due to inadequate earning power. Especially is this true if the insufficiency of working capital has come upon the industrial suddenly and without time for the adjustment of the multifarious parts of its business to the new conditions. This is exactly what occurs when an industrial is confronted with a sudden paralysis of business and a very rapid drop in prices. This is what occurred in the summer and autumn of 1920.

Reorganized Similarly to Public Utilities.—There is no hard and fast scheme of classification of industrial reorganizations. Yet in a very general way it can be said that industrial corporations, when they have failed because of inherent lack of earning power, are reorganized in much the same way as public utilities—reorganized on a plan of reduced fixed charges and new capital for rehabilitation. Whereas industrial corporations that find themselves suddenly in difficulties because of bad accounts, deflated inventories or demands from banks that cannot be met, are often assisted in some form of emergency financing which does not result in the recasting of the entire financial plan. To accomplish this emergency financing with the least dislocation to the business and to avoid action through the courts, a creditors' committee may artificially hold the enterprise afloat until the managers shall have had time to work the corporation out of its difficulties. This distinction is by no means clear-cut nor is the difference of procedure unvarying. Thoroughgoing reorganizations have been put through by the aid of courts where the only trouble lay in the lack of working capital, and creditors' committees have attempted to tide over a crisis where the real and abiding difficulty was one of low earning power. Nevertheless, the distinction serves as a working hypothesis in the maze of industrial reorganization. For the sake of clearness of exposition we shall treat in this chapter the general plans and expedients of industrial reorganization, and reserve to the succeeding chapter a consideration of the operation of creditors' committees as aids or substitutes for reorganization.

Greater Variety of Financial Plans Among Industrials.—There is far more variety to be found in the financial plans of industrials than those of railroads. Consequently, when, as always in a real reorganization, it is necessary to disturb their financial structure, one is apt to find a greater variety of treatment and greater latitude shown by the courts in dealing with different claims of security holders. This is because of the essential differences between public utilities and manufacturing or mercantile enterprises. In their social status as public utility corporations and from the similarity of their operation in furnishing a service and not a commodity, railroads, tractions and local utilities are all alike. Industrial enterprises have little in common among themselves except the absence of those very characteristics possessed by public utility enterprises. One class operates under the conditions of a protected monopoly, the other under conditions of free competition. There are no real monopolies of location in the industrial field, and whatever approach to monopoly can be discovered lies in the direction of control over patents or trade-marks. Therefore the earnings of any single industrial must be subject to abrupt fluctuations due to changes in the general purchasing power of the community and to changes in the managerial ability exercised by the men in control. From the beginning their financial plan must therefore be based on the presumption that the business can rely on itself alone in protecting its trade position, never on the community.[1] This fact is paramount in formulating any plan for reorganizing an industrial undertaking.

Failure of Industrial Corporations Without Bonds.— Most industrial corporations, because of the fluctuating character of the earnings, were organized without bonds.[2] For this reason many companies which have been, on the whole, unsuccessful as evidenced by continued low earning power have been able to survive successive business depressions and single unprofitable years without ever meeting the necessity of reorganization. So long as they met the direct expenses of operation and possibly the preferred stock dividends, they could run along the even tenor of their way, however small their net earnings. The fact, therefore, that an industrial corporation has not been reorganized in no wise argues for its fundamental success.

---

[1] The competitive, in contradistinction to monopolistic, character of industrials has been repeatedly pointed out. See particularly the chapter dealing with financial plan to be followed at the time of the promotion of a manufacturing company—Book II, Chapter V.

[2] *Ibid.* See also the study recently made of the structure of numerous financial plans given on page 111.

Enforced reorganization of railroads has occurred, almost invariably, only after the actual or threatened failure to meet bond interest. Had the railroads been without bonds, few, if any, reorganizations would have been recorded. But such is the insecure position of many industrials, buying and selling in competitive markets, that reorganization has been necessitated by the mere losses incurred by their ordinary business transactions. Thus in the six months prior to the reorganization of the old Consolidated Cotton Duck Company into the International Cotton Mills Corporation, the former company endured a net manufacturing loss of $244,000 which was augmented by the payment of interest amounting to $575,000.[3] Similar disasters fell upon many small industrials in the fall of 1920, caused not only by the decline in the value of inventories but by the complete stagnation of their sales when the production departments could not be stopped because of the force of their own momentum. Many industrial reorganizations have followed in the wake of conditions so unfortunate that, in spite of the fact that bond interest was absent, the corporation could not meet the expenses incident to its ordinary business.

Position of General Creditors.—This suggests that general creditors of industrial enterprises are in a stronger position than the general creditors of railroads. Their liens are not ordinarily superseded by those of bondholders, nor is the practice of permitting the issue of receivers' certificates to take precedence over ordinary general creditors so often permitted by the courts.[4] The general creditors can, therefore, by threatening to liquidate the property of the company, force the stockholders to meet fully their claims. This is well illustrated by the reorganization of the old United States Shipbuilding Company into the Bethlehem Steel Corporation, and more recently by the reorganization of the Allis Chalmers Company in 1913. Every dollar of current debt was paid, although both reorganizations were very drastic and in the former the preferred and common stocks were wiped out. On the other hand, the internal organization of an industrial company, being sometimes the most valuable part of the corporation's property, would be jeopardized should the old management surrender the corporate assets to the creditors and start a new and competing business of their own.[a] The creditors are thus at a disadvantage in dealing with them, in spite of the apparent security of their claims. In view of all these considerations one is less able than in the case of railroads to form even tentative generalizations. One cannot say, for example, that a temporary shortage of money and a permanent overburdening of capital charges will be found present as a condition precedent to every industrial reorganization as is the case in every railroad reorganization. Nor can one find sufficient grounds for the presumption that relief from a heavy floating debt and a reduction of fixed charges are the invariable consequences of every industrial reorganization. The most that can be said is that ordinarily in industrial reorganizations some new working capital is supplied and there is some readjustment of the forms of capitalization. And while this readjustment of the capitalization is likely to entail a lessening of the fixed charges, cases are by no means uncommon in which a reorganization burdened an industrial with new and increased charges.

---

[3] Report of President, Consolidated Cotton Company for year ending December 31, 1909.

[4] *Infra,* page 1015.

Liquidation of Enterprise.—Unlike railroads, industrial enterprises may ordinarily be liquidated if such a course seems expedient. Sometimes it is even expedient to liquidate a business before a critical condition has arisen, especially if a large part of its assets are easily salable. Yet, under the best conditions, the sale of corporate assets is bound to show losses as compared with their book value.[b] If the enterprise has little hope of success it will be best under all circumstances for those interested to recognize the fact and sell the property for what it will bring, even though the creditors will suffer considerable loss and the stockholders entire loss. Experience drawn from various enterprises that were reorganized several times in succession shows that, severe as would have been the losses at the time of the first reorganization, they were small compared to those endured by the men who continued to add new money at the time of each successive failure.

---

[a] Sometimes creditors have taken over a failed business and attempted to operate it. Such cases have usually resulted in still another and more serious failure. Thus in the reorganization of the old National Cordage Company in 1894, the creditors took entire control. This forced the old officers to start businesses of their own. In the weakened condition the reorganized company failed again in a year.

A single example illustrates this point. The original cordage consolidation was reorganized three successive times and the assets of the last company finally liquidated. Suppose $1,000 had been invested in its best security, a preferred stock, at the time the consolidation was formed. Such an investment would have sustained three separate assessments in the three reorganizations — $200, $120, and $31.50 — aggregating $351.50 At the time of the final liquidation the securities held after having met these assessments had a realizable value of approximately $30.[5]

Significance of Personal Element.—The most conspicuous difference, however, between all public utility and industrial reorganizations is the greater significance of the personal element in the latter. It was asserted in the opening paragraphs of the second chapter of this study of reorganizations that the human or psychological considerations were the most important

---

[b] Thus in spite of the readily marketable character of the stocks and bonds carried by the United States Express Company, that portion of the assets represented by equipment showed a net loss from book value of $367,516 during the first six months of the liquidation. At the same time a charge against assets of $548,000 had to be made to represent other liquidation debit charges, such as the charging off of organization expenses, the bonus paid for the cancellation of unexpired leases, rentals, etc.

---

[5] See Dewing, A. S., Corporate Promotions and Reorganizations, 161 (1914).

and often the determining motives in all reorganizations. This assertion is conspicuously true in the case of industrial reorganizations, whether one considers the reorganization of a little village factory or that of a great enterprise, like the Westinghouse Electric and Manufacturing Company, or the Goodyear Rubber and Tire Company, with branches and affiliations all over the world. The popularity of the chief executive officers is able often to carry such weight with bankers that a plan of reorganization is accepted which otherwise would have been thrown aside; the dislike of business associates toward some man has often been the direct cause leading to a crisis in the affairs of a corporation with which he was connected and the ultimate acceptance of a plan of reorganization the main purpose of which was to eliminate him from the management. Jealousy always plays an important rôle. Personal likes and dislikes determine the lines of cleavage among the various interests directly affected and the strength of these lines of cleavage determines the plan of reorganization ultimately imposed on all concerned. These personal motives are seldom apparent on the surface, yet they exert a subtle influence at every turn in all industrial reorganizations.

Cause of Industrial Failures.—If it is decided that the business shall be reorganized, it is necessary to discover the causes of failure. As already pointed out in another connection, corporations do not ordinarily fail because of the lack of working capital, but rather the appearance of a lack of working capital is an outward sign of fundamental difficulties.[6] The real cause of industrial failure is quite as little apt to be a difficulty of securing credit due to sudden tightening of the money market as in the case of railroad failures, although, if there is any plausible justification, this cause will be alleged. As in the case of railroads, the real reason underlying the difficulty in securing further bank loans is not the obstinacy of the banks but the impoverished credit of the company. And this, in its turn is due to inherent and continued lack of earning capacity. Quite probably the corporation paid interest on debt and even dividends out of capital during the period prior to the acknowledged failure, although this interpretation of their action will be avoided by the directors.[7] Yet the fact will remain, whether cause or effect, that the failed corporation is in straits and requires more ready money. So that, as in the case of railroad reorganizations, the chief ends of industrial reorganizations are necessarily the removal of the underlying cause of the failure and the collection of new money. But in the case of railroad reorganizations, the underlying cause is usually connected with an excessive fixed charge. This is not always true with industrials, because many industrials in financial straits have been altogether without bonded debt. Consequently, although the purpose of collecting new money is invariably present in every industrial reorganization, the rest of the reorganization does not always turn about the problem of reducing the fixed charges. It may happen—in fact it often does happen—that the need for new money is so urgent that a new fixed charge is added because the sale of first mortgage bonds is the only means available to obtain new money. The stability of the future is sacrificed to meet the necessities of the present.

---

[6] See Book V, Chapter II, particularly page 925.

Sources of New Money.—At the time of the reorganization free money is often obtained by the receivers indirectly by ceasing the payment of interest on debt or the principal of maturing obligations. If this is not ample, the receivers may be permitted by the court to issue receivers' certificates, although the reasons for the issue of these certificates must be more urgent and the amounts less liberal than in the case of railroads and public utilities. The indiscriminate and reckless issue of receivers' certificates, which the federal courts have tolerated in recent cases of railroad receivership, is absent in the case of industrials. The courts have assumed that the necessities of the public do not require the continuation of the business at a loss to the creditors and stockholders. Whether or not receivers' certificates are issued, the problem for the reorganization managers is the same—to obtain enough new money to meet the outstanding debts of the old corporation and to supply the reorganized corporation with adequate working capital.

---

[7] *Infra*, page 922.

The simplest method of obtaining new money is to sell preferred stocks or bonds—sometimes both—to banks and investment bankers. In this way the stockholders are not required to act individually nor to make conscious sacrifices, except perhaps the mere consent to a new bond issue. Experience has shown that it is both costly and provocative of controversy to induce stockholders of embarrassed industrials to make a direct sacrifice, such as the payment of any assessment. On the other hand, stockholders do not offer serious objection if new securities are placed ahead of their stock, although their sacrifice through the deflection of the actual and realizable value of their equity may be even greater than the amount of a reasonable assessment. It is another instance of the inertia of stockholders.

If no mortgage or other form of funded debt exists, bankers will frequently consent to buy a small issue of first mortgage bonds of the reorganized company on the assumption that the assets are at least sufficient to cover the debt. In such cases, it is common for bankers to insist that the new company maintain large fluid assets to further strengthen the bonds.[c] And

---

[c] Thus, when Blair and Company bought $2,000,000 par value of notes of the International Cotton Mills Corporation of New York, soon after the latter was formed out of the nearly bankrupt Consolidated Cotton Duck Company, the bankers insisted that the corporation should place no new mortgage on its property and that it should maintain its quick assets at least equal to its liabilities, including the $2,000,000 of notes.[8]

This plan of insisting that the embarrassed industrial corporation should issue no senior securities as long as the emergency securities remained outstanding was very common with the sale by bankers of preferred shares and notes to relieve the distress caused by sudden deflation of inventories and lack of working capital.

---

[8] Agreement between International Cotton Mills Corporation and the Mercantile Trust Company dated July 13, 1911, Article 3.

even when the new company is able to show assets far in excess of the new debt, the difficulty lies in finding investment bankers who will consent to buy any securities whatever of an enterprise known to be on the verge of bankruptcy. Without regard to the fundamental security of the bonds, bankers of high standing are unwilling to permit their names to be connected with enterprises likely to become notorious through repeated failures.

Bankers' Relation to Management After Reorganization.—As a rule, therefore, bankers are willing to advance money to relieve a threatened or actual failure, only in those cases in which the embarrassment is to be traced to causes easily discovered and easily remedied. Future success then turns upon the question of management. To safeguard themselves against bad management and even a repetition of threatened or actual embarrassment, and to give the corporation the advantage of their specialized knowledge, the bankers who do advance money under such circumstances always require that at least one of their associates be elected to the board of directors. It is quite usual for them to go even further and assume the actual financial administration of the new corporation. Furthermore, to secure this co-operation and to make the bankers' interest in the new company worth while the corporation may pay the bankers' commission partially or wholly in common stock.[d] Very frequently the greatest benefit resulting from the reorganization is the new moral support of the bankers and the general confidence which this support engenders. Their money is soon spent, but their co-operation remains. As a result of these considerations it may be said, in summary, that those reorganizations in which the new money has been supplied by independent bankers have followed, almost invariably, failures of the least serious sort. This is particularly true of failures attributable to some temporary emergency not likely to occur again—such as the sudden tightening of the money market or the immediate need for new equipment.

---

[d] Thus in six industrial reorganizations examined in another connection which turned upon bankers' contribution of new capital, the bankers' commission was stock alone in four of the cases, stock and money in a fifth, and money alone in only one case.

Money Contributions by Stockholders.—When the necessary new money cannot be obtained by such simple means as the sale of treasury assets or the quiet sale of new bonds to outside bankers, it must be subscribed by the stockholders. This method, although perfectly fair, because the stockholders are the real owners of the business and should bear the burden, is found difficult to apply in practice because of the reluctance of stockholders to face squarely the result of failure. In deference to this feeling and to remove the taint of assessment, it is common to give to the stockholders a new contingent charge security in return for their money contributions. This usually takes the form of a preferred stock and is not likely to be as carefully safeguarded as the bonds which are sold to bankers. Yet no bonds are placed ahead of it, for otherwise the stockholders would not subscribe.

If there is reason to suppose that the stockholders will not voluntarily submit to what is virtually an assessment, the directors may find it necessary to throw the corporation into the hands of receivers and submit to a judicial sale of its assets. In no other way can the non-contributing stockholder be eliminated. But, as in the case of railroads, this extreme method of coercion is both expensive in money and destructive to the credit and trade position of the corporation. It is resorted to only in extreme cases when the recalcitrant stockholder cannot be reached by all the arts of persuasion. The second Westinghouse reorganization of 1908 is notable in that no sale of the corporation occurred and the stockholders contributed a large amount of money, for which common stock only was given them. However forceful this exception appears, the fact remains that threatened loss of their entire investment is ordinarily alone able to wrest new money from stockholders.

An unusual but efficient and direct plan is followed by the

Massachusetts textile mills when they find their credit impaired. The stockholders first authorize the reduction of the capital stock by a certain proportion, possibly 50 per cent. This involves the cutting of each stockholder's interest in half. They then authorize the sale of the stock surrendered at par to either the old stockholders or outside bankers. The final result of these two steps is a substantial increase in the available money, without any increase whatever in either the amount of stock outstanding or the direct liabilities. This method has been applied in other reorganizations outside of New England but in a less drastic form.[e] Its advantages lie in its simplicity and the slight dislocation of the corporation's business which is likely to occur. It is merely a matter of sacrifice on the part of the stockholders to enable the corporation to strengthen its general credit.

Money Secured from Bondholders.—Money can be obtained from bondholders only in case the funded debt is considerable and the apparent equity remaining to the stockholders comparatively small. If there are reasons to believe that the assets of the corporation can be liquidated or can be sold at judicial sale for an amount sufficient to cover the bonded debt, no pressure can be brought against the bondholders. They would prefer to "allow the law to take its course" rather than to contribute to the relief of the company. It is therefore only in cases of extreme embarrassment that help may be expected from the bondholders; and it follows from this that the worse the failure proves to be, the more the bondholders will be concerned in the reorganization.

---

[e] An excellent example of this type of reorganization possessing a more than local interest is the first reorganization of the Westinghouse Electric and Manufacturing Company in 1891. The company had grown very rapidly. As a result its unsecured debt had attained threatening proportions. The management conceived the wise plan of selling preferred stock to the creditors and outside bankers but were unwilling to merely increase the outstanding capitalization. Accordingly the Westinghouse Company proposed that the stockholders should surrender 40 per cent of their holdings to the company's treasury. The treasury stock thus obtained could be made preferred and sold for the benefit of the company. Great difficulty was experienced in persuading the stockholders to endure the sacrifice, although it saved the company from threatened bankruptcy.

Yet even when no equity remains to the stockholders, and the corporate assets are less than the debt, it is usual to allow the stockholders to come into the reorganization on the payment of a heavy assessment in order to maintain the continuity of the business organization. Care must be taken, however, to ascertain either that this stockholders' assessment will be paid, or that the failure of the stockholders to respond will not jeopardize the success of the reorganization. When the stock of the old company is selling at a few cents a share in the market, it is evident that the stockholders will make little sacrifice to save it, and the bondholders would probably do well to reorganize the company alone without the tentative help of the stockholders. If more than one issue of bonds existed in the capitalization of the old company, some difficulty arises in apportioning the relative amounts which the different bondholders should contribute. Generally speaking, the underlying, senior bondholders can be relied upon but little, and most of the new money must be collected from the junior bondholders. Yet if the junior bonds are of little value, their holders will relinquish all interest in the reorganized company rather than pay any considerable assessment. In such a case the senior bondholders have no other alternative than to furnish the money necessary with perhaps slight help from the junior bondholders. Such a reorganization plan would follow only the most serious failure.

Many of these principles are illustrated by the reorganization of the Standard Rope and Twine Company in 1906. In this case the company had a small issue of First Mortgage Bonds (about $3,000,000), an issue of Income Bonds (amounting to $7,000,000), and a large issue of stock, together with a considerable floating debt. The reorganization required at least $1,000,000 in new money. The stock was worth nothing, the Income Bonds had slight value. The assets of the corporation were hardly worth the small issue of First Mortgage

Bonds. In the reorganization plan the First Mortgage bondholders submitted to an assessment of 26½ per cent—abnormally large because the bond issue was small—but they could exact only an assessment of 5½ per cent from the Income bondholders. The stockholders were eliminated.

Outside Creditors.—Cases in which an assessment or money contribution is required of the outside creditors are very rare and are likely to occur only as a result of unusual circumstances. Either the outside debt is unsecured and there exist mortgage bonds which have a prior lien on essential assets —in which case the creditors are in a position analogous to the junior bondholders—or else they are impelled to assist the corporation from reasons of permanent self-interest.[f] In the former case they submit to the payment of a small assessment to enable the corporation to continue in business, knowing that if the assets were liquidated their claims could not be paid in full. As in all other cases, a money assessment is wrung from the class of security holders occupying the border line between security and insecurity as the price paid for a chance to recover apparent losses. Thus in the original reorganization of the National Cordage Company, the unsecured noteholders submitted, practically, to a money assessment in taking 65 per cent of their claim in long-term bonds rather than forcing a settlement in cash. This was because the secured creditors were in a position to force the liquidation of the corporation's assets, in which case the unsecured creditors would be almost entirely wiped out. In consideration of this arrangement, the stockholders advanced money, taking in return only stock. This strengthened the obligations of the unsecured creditors. In other words, the unsecured noteholders could realize little by enforcing their claims; but by enabling the company to keep in business, through the further investment of money, they thought that they would stand a good chance of finally realizing on their claims. In this particular instance, however, they were disappointed.

---

[f] In connection with the status of outside creditors in industrial reorganizations it should be said that even federal courts are reluctant to apply the rule in Fosdick v. Schall, 99 U. S. 235 (*supra*, page 98), to industrial receiverships. Nor will the court ordinarily permit the issue of receivers' certificates to take precedence over mortgage bonds, the proceeds from the sale of which are to be used to pay bank or mercantile debts contracted before the receivership. In unusual cases the court may permit the payment of wage debts outstanding at the moment of receivership. Thus the receivers of the International Steam Pump Company were permitted by the court to pay certain wages and salaries for the month in which they were appointed on the presumption that the business could be maintained as a "going concern" only through the continued service of the more important officers and highly skilled employees.

The receivers of the Walpole Rubber Company, a small local rubber factory, were permitted to pay for several car-loads of coal received just prior to the failure, because only by paying for these cars could the receiver get the coal immediately necessary to maintain the operation of the plant.

The permanent self-interest of those security holders occupying what might be called an intermediate position is that of prospective profit through enabling the corporation to continue in business. Many of the unsecured creditors have claims representing open accounts and merchandise notes, arising through the ordinary business relations with the failed corporation. These merchandise transactions have been a source of profit in the past, and the merchandise creditors have every reason to believe they will continue to be in the future—provided the business can be rehabilitated. They are therefore willing to buy the long-time notes—or even the stock—provided there is reasonable assurance that the new company will purchase goods of them in the future.

Examples of Treatment of Outside Creditors.—In the first Westinghouse reorganization, the merchandise creditors funded upwards of $2,000,000 of open accounts and notes into preferred stock, and in the second Westinghouse reorganization the merchandise creditors again funded over $4,000,000 of notes and accounts into common stock taken at its par value—distinctly higher than its market value. A not dissimilar plan was followed in the final plan of the Avery Company, a Chicago farm implement organization. The management first endeavored to meet the financial difficulties of 1920 by selling $3,000,000 of notes—the simplest means of financial adjustment when a company has no heavy mortgage debt. But in this case the palliative was insufficient and in 1922 the holders of the company's debts practically forced the old stockholders to buy new no par common stock at $5 a share, thus bringing new money into the business to rank junior to all other securities.

In the numerous reorganizations or readjustments following the severe business reversion of 1920 a similar plan was followed, only the holders of the common stocks were not affected. This leniency was based on the presumption that the cause of the troubles was transitory, and when prices had advanced the embarrassed company could dispose of its inventories. A thoroughly typical recent instance of such a readjustment is afforded by the case of the American Chicle Company. The company experienced considerable difficulty in recovering from the depression of 1920 and by March, 1922, the company was in default under certain terms of the agreement securing 6 per cent serial notes. Apparently, too, the company would not be in a position to meet the October interest on these notes; and the company had outstanding upwards of $2,000,000 bank debt without apparent means to meet it or credit to refund it. Accordingly a plan was proposed[9] which provided that the holders of the serial notes should obtain 10 per cent of the principal in cash and refund the remainder, 90 per cent, into new 6 per cent five year notes maturing in 1927. The holders of the bank loans agreed to extend their notes for a period of a year at 6 per cent interest. In this case no sacrifice was required of the stockholders, either common or preferred, except that the management agreed to pay no dividends until the serial notes and the bank debt had been paid.[g]

---

[g] A similar plan was followed in adjusting the difficulties of the American Hominy Company resulting from the business difficulties of 1920. It had outstanding an issue of 7 per cent First Serial bonds, and on May 27, 1922, its current liabilities were $1,876,401, while its current assets, even at the book valuation, were only $1,650,903. An operating deficit of $250,000 had arisen from the year's operation. In the presence of this emergency the holders of the 7 per cent bonds took Ten Year 6 per cent First Mortgage bonds, while the bank creditors—holding $1,755,000 of notes—took $500,000

[9] Plan of August 30, 1922.

Effect of Reorganization on Capitalization.—If we turn from those aspects of the financial plan of industrial reorganizations having to do with the sources of new money to those dealing with the permanent changes in the capitalization, there is discernible even less ground for possible generalizations. It was already pointed out that the principle laid down in railroad reorganization, that the fixed charges were invariably reduced with the possible increase in total capitalization, does not hold true in the reorganization of industrial enterprises.[h] Not only may the total capitalization be increased by the reorganization, but that portion having fixed charges is as likely to be increased as not. In fact, one of the commonest means of relieving a company in financial difficulties has been to fund the current debt into first mortgage bonds, though the company may have had no funded debt before. The specific form of the reorganization plan is therefore determined by two independent sets of circumstances, the financial structure before the embarrassment and the seriousness of the embarrassment. As the financial structure of all our great railway systems is essentially the same, a classification of railroad reorganization plans could be made on the basis of the seriousness of the failure alone; but owing to the fact that this unity of financial structure does not prevail among industrials no such simplicity of classification is possible.

Types of Industrial Reorganizations.—To get any logical order at all in the grouping of industrial reorganization plans, it is necessary to adopt another criterion. The one that seems to serve the purpose best is that of motive. Accordingly we may deal with the subject on the assumption that there are three types of reorganization plans. The first is that in which the motive is to get relief from an accumulation of contingent

---

unsecured notes and $1,255,000 in Five Year debenture bonds. The common stock was undisturbed.

[h] Of 23 successful plans of industrial reorganizations examined in another connection, 9 showed an increase of fixed charges, 10 showed a decrease, and in 4 cases the fixed charges remained unchanged. Dewing, A. S., Corporate Promotions and Reorganizations, 617, Plate A (1914).

charges on the preferred stock. These reorganizations might well be called mere capital adjustments. They are usually carried through in the interest of the common shareholders who would benefit from the extinction of accrued charges ahead of their stock; and to be successful the corporation must be in a fairly healthy condition, so that this type of reorganization is seldom resorted to in the presence of immediately threatened insolvency. It was used quite extensively in the period from 1916 to 1920 by corporations which had been unable to meet preferred dividends before the Great War but which had enjoyed a measure of hectic success from 1915 to the business reversal of 1920 and used the opportunity to secure relief from the load of unpaid preferred dividends.

The second and third types, on the other hand, invariably follow failure or serious financial embarrassment. In the second type the crisis is immediately occasioned by a heavy, overpowering floating debt. Either by reason of lessened earning capacity or by reason of some other inherent weakness, the directors of the corporation find themselves able neither to continue nor to fund into bonds and stock the current maturing obligations. They are forced therefore to resort to some reorganization in order to continue the business. The third type of reorganization is analogous to the usual railroad reorganization. The failure is brought about by the attempt to meet the fixed charges on excessive bond issues or leased factories. The purpose of the reorganization, therefore, is always to reduce the fixed charges. The rest of this chapter is devoted to a discussion of these three types, but it must be admitted from the start that any classification of industrial reorganizations whatever is at best of value for simplicity of exposition rather than for anything indicative of fundamental differences. Furthermore, it should be remembered that any attempt to make an objective classification of industrial reorganizations on the ground of motive is vitiated by the simple fact that the primary motive is ordinarily personal. And this is difficult and sometimes impossible to decipher. Human ambitions, feelings, and caprices are purposely clothed in the colorless and impersonal forms and phraseology of our commonplace financial jargon.

Capital Adjustment to Take Care of Accumulated Preferred Dividends.—Those reorganizations of the first type, consummated primarily to relieve the corporation of an accumulation of unpaid preferred dividend charges, usually avow a balance of advantages to both preferred and common shareholders. They involve, ordinarily, some capital readjustment which brings the common stock nearer to the payment of dividends and turn, almost always, upon some modification of the preferred stock contract. The holders of this class of stock, knowing that their claim to unpaid dividends is indirect, and that they are powerless to enforce the payment no matter how large the earnings of the corporation may be, are usually willing to release their claim to dividends in return for some concession from the corporation. In rare instances only it amounts to the payment of the accumulated dividend in money; except that during the period of the Great War so many large industrial corporations were abnormally successful that many, having an accumulation of unpaid dividends on their preferred stocks, paid them off out of war profits.

The new securities given for the adjusted dividend may take the form of: (1) the issue of a new higher dividend-paying preferred stock in exchange for the old cumulative preferred stock with its arrears of unpaid dividends; (2) a funding of the preferred stock dividend accumulations into new securities; (3) the funding of the old contingent charge preferred stock, with its accumulated dividends, into new bonds bearing interest charges lower than the dividend rate on the old preferred stock. All these methods and perhaps combinations of them have been used, and used with success. Invariably, the management, controlled by the common shareholders, represents that the plan to be adopted is of mutual benefit to all classes of security holders. In some cases it is, in other cases it is not. For one observes easily that in each of the means adopted, the direct charges of the corporation are increased. And the advisability of the whole readjustment depends on whether or not this disadvantage is more than balanced by greater advantages.

Exchanging Higher Paying Preferred Stock.—When the earning capacity of an industrial corporation, previously unsuccessful, has been firmly established, the management may feel justified in offering the preferred stockholders an increase of income in return for the cancellation of their claim to unpaid dividends. This is the first method mentioned in the preceding paragraph. It is illustrated by the reorganization of the Interborough-Metropolitan Company of New York City in 1915, which, although not an industrial corporation in the sense used here, presents a clear case of such an adjustment. Owing to enormous losses in connection with the ownership of the stock of its subsidiary, the Metropolitan Street Railway, the parent company, did not feel like paying any dividends on the common stock while there existed a deplorable discrepancy between the par value of its shares and the net value of its assets.[1] Behind this lay the fact that the business at the time was improving. It might even warrant the payment of current dividends on the preferred stock, notwithstanding the fact that there was a large accumulation of unpaid dividends. The men in the management, who controlled the common stock, saw an opportunity to get dividends on their common stock if the incubus of the accumulated dividends on the preferred stock could be done away with. They recognized that they would never receive dividends if the accumulations on the preferred should be liquidated out of earnings.

Accordingly the company proposed to give to its stockholders new 6 per cent non-cumulative preferred stock in exchange for the old 5 per cent cumulative preferred stock, together with its dividend accumulations. The common shareholders were to receive new shares without par value, thus extinguishing the pretended money value of the common stock. In this manner the preferred stockholders were given a larger dividend and the common stockholders a chance to receive some return without waiting for the payment of the accumulated dividends on the preferred.[10] Clearly this method is applicable only when the management feels assured that the business of the corporation will in the future prove more profitable than in the past, as otherwise the increased preferred dividends will only lead to a more rapid dissipation of earnings, provided the dividends are paid; and if they are not paid nothing will have been gained by the reorganization.

---

[1] Par value of stocks $139,000,000. Admitted value of assets $50,000,000. Even this $50,000,000 was excessive, as the $68,000,000 Collateral Trust Bonds represented all the value there was to the assets of the company—even taking the Interborough stock as worth $150 a share, a high valuation, and the New York Railways stock as worth $10 a share—so that the stocks represented in truth no "capital assets."

Funding Preferred Stock Dividend Accumulations.—More common and probably easier to accomplish is the method of effecting a compromise in the payment of the preferred dividends in arrears, by offering to give new securities of the company in lieu of at least a part of them. Sometimes the preferred stockholders are given non-interest bearing scrip, due, say, two years hence, in liquidation of their claims.[j] In this way a contingent liability is changed into a direct one, and at the same time the common stockholders are brought into a position to receive dividends when the current earnings warrant. In rare instances—and then only when the company bids fair to pass through a period of pronounced prosperity—the preferred stockholders are given interest-bearing bonds in exchange for their preferred claims; and instances are known in which the accumulated dividends have been partially paid off in money obtained from the proceeds of the sale of bonds.[k]

---

[j] It was proposed in 1899 to liquidate 30 per cent of accumulated unpaid dividends on the preferred stock of the United States Leather Company by the issuance of 10 per cent in scrip.

[k] In 1913 the American Can Company's preferred stock had accumulated unpaid dividends amounting to 33 per cent. By cutting down the depreciation charge the company was able to show a substantial surplus

---

[10] See announcements made by the company at the time, as 5 N. Y. Times Annalist, 430.

Such readjustments, however, can hardly be called reorganizations, unless they are sufficiently comprehensive to involve considerable changes in the financial plan. The most comprehensive of these readjustments, involving an actual reorganization of the company, occur when there is a surrender of certain cumulative dividend claims attached to the preferred stock in exchange for some of the common stock relinquished by the common stockholders. As a result the preferred shareholders have a larger interest in the company, but the common shareholders—although possessed of a less number of shares—have a much more valuable security owing to the extinction of the preferred stockholders' claims to unpaid dividends.

Distinctly the best illustration in recent corporate history of a reorganization in which the old preferred shareholders acquire a part of the common stock, is the final reorganization of the United States Leather Company into the Central Leather Company in 1905. The old United States Leather Company, organized in 1893, had met with only a modicum of success. After several plans of reorganization had been suggested and failed of adoption, the company found itself, in 1904, with accrued unpaid dividends of $43 a share on its $62,000,000 of 8 per cent cumulative preferred stock. A reorganization was consummated in which the preferred stockholders exchanged this 8 per cent cumulative preferred stock for half the par value in new 5 per cent First Mortgage Bonds and the other half in new 7 per cent cumulative preferred stock. The actual result was therefore a reduction from 8 to 6 per cent, or one-fourth, in the total charge ahead of the common stock, but of the new charge five-twelfths was fixed and the other seven-twelfths contingent. In exchange for the accumulated unpaid

---

on the basis of which it sold $14,000,000 of 5 per cent bonds to a syndicate of bankers. With the proceeds of these it paid off 24 per cent of the accumulated unpaid dividend on the preferred stock. On the anticipation of possible dividends, encouraged by the manipulation of a powerful "bull clique" operating in the stock (the same interests who were responsible for the ruin of the Rock Island road), the New York Stock Exchange quotations of the shares were forced upward from $12 a share to $47 a share. For further details see Book III, Chapter II, note (c).

dividends, the preferred stockholders received 23½ per cent in a new common stock. To accomplish this result, the old common stockholders surrendered 70 per cent of their stock.[11]

Funding Preferred Stock and Accumulated Dividends into Bonds.—Much more serious changes in the organization of a company arise when the management funds the preferred stock, with its accumulated dividends, into bonds. Feeling that the future earnings of the corporation are assured, the directors, owning the common stock, seek, by the glamour of the word "bond" and by its stronger lien on earnings, to bribe the preferred shareholders to surrender their claims to unpaid dividends and to submit to a lowering of income.

The difficulty of adjustment and the final working out of this principle is excellently illustrated by the reorganization of the United States Realty and Construction Company into the United States Realty and Improvement Company. The former corporation was organized for the primary purpose of building and operating New York real estate and the secondary purpose of speculating in the shares of other corporations. To further both purposes, $11,000,000 in money was subscribed by a syndicate.[12] The company had no direct funded debt, although there were mortgages on some of its buildings. Hardly a year after its organization the company was at least temporarily embarrassed by the depression in urban real estate and the fall in earnings of various of the corporations in the stocks of which it had speculative commitments. The corporate income was insufficient to meet the 7 per cent cumulative dividends on the preferred stock. Yet the common stockholders, who controlled the company, realized that the holders of the preferred would not consent to a reduction in dividend unless their claim became fixed instead of contingent. At first it was proposed to give the preferred stockholders 70 per cent of their holdings in 4½ per cent bonds, so that their income would be cut in half, then 60 per cent in bonds was suggested, then 35 per cent, and finally 50 per cent was agreed to, provided a bonus of 42½ per cent in new common stock was allotted them and the old common stockholders consented to a surrender of 85 per cent of the par value of their shares. In this way considerable sacrifices were endured by both classes of stockholders, but the total capitalization of the company was cut in two and the charges reduced about 60 per cent, although these were fixed instead of contingent.

---

[11] Further details in Dewing, A. S., "The United States Leather Company and its Reorganizations," 26 Q. J. E., 68 (Nov. 1911); reprinted in Dewing, A. S., Corporate Promotions and Reorganizations, Chap. II (1914) and Ripley, W. Z., Trusts, Pools and Corporations, Chap. XI (1916).

[12] Book II, Chapter VIII, page 387.

Even without the necessity of a formal reorganization or even without an accumulation of preferred stock dividends as evidence of previous low earnings, the conversion of high dividend paying preferred stock into bonds is not impossible. This was shown by the success with which the United States Steel Corporation induced its 7 per cent preferred stockholders to convert their stock into 5 per cent second mortgage bonds.[13] In this case, as in all others, the success of such a plan turns upon the balance, in the individual stockholder's mind, between a larger contingent return and a smaller fixed return. It should be noted, however, that such refunding operations are very dangerous for the corporation to enter into, as the actual debt is increased and the preferred stockholders become creditors capable of enforcing the payment of their interest by legal means. From every point of view the credit of the corporation is impaired.

Preferred Stockholders' Claims an Anomaly.—Surveying this whole group of industrial reorganizations, consummated for the tacit purpose of eliminating the claims to unpaid dividends by the preferred stockholders, it is evident that we are dealing with attempts to simplify and unify the financial structure of a corporation. The preferred stockholders' claim to

Anomaly: Arising from original

---

[13] For full particulars of the United States Steel conversion, see articles by Mead, E. S., 18 Quart. Jour. Econ., 22 (Nov. 1903); Whitney, E. B., 18 Quart. Jour. Econ. 303 (Feb. 1904); Ripley, W. Z., 19 Quart. Jour. Econ. 316 (Feb. 1905). Also U. S. Com. of Corporations Report on the Steel Industry, 1,318 (July, 1911). Parts of these documents are reprinted in Ripley, W. Z., Trusts, Pools and Corporations, Chap. VII (1916).

unpaid dividends is an anomaly. It is not a liability in the sight of the law or accountancy. Yet it intervenes between the current earnings and any disbursements to the common shareholders quite as much as—and in some respects more than—an acknowledged liability. In every reorganization of this class, the effort is to do away with this anomalous situation and somehow bribe the preferred stockholders into relinquishing their shadow of a liability. And the compensation made to them varied according to the current prosperity of the company, the strength and vigor of the contract by which the preferred stock was originally issued, and—like all adjustments made by human beings—the relative obstinacy of the parties concerned. As a result, fixed charges are quite as likely to be increased as decreased, and the total admitted capitalization is likely to be larger than before the reorganization. From every point of view these reorganizations are in contrast to those carried out in the presence of a threatened financial crisis. This type represents the aftermath of blasted hopes, not a remedy for disaster.

Relief from Excessive Floating Debt.—The second of the great groups of industrial reorganizations are those planned primarily, often entirely, to relieve the corporation of an overpowering burden of floating debt. Until the recent practice of railroads in issuing short-term notes had brought about its evil consequences, failures and reorganizations resulting from an embarrassing burden of floating debt were confined to the history of industrial corporations. The long-established practice of the vast majority of industrials to carry at least a part of their quick assets by means of short-time loans from the banks, places the industrial in a peculiarly vulnerable position when the lending banks refuse to continue or extend the corporation's notes.

Peculiar difficulty is found in differentiating reorganizations of this class from all others, because the management of every embarrassed industrial alleges at the time that the difficulty is due entirely to the obstinacy of the banks, or their inability to extend credit further. Were these diagnoses of the embarrassed corporations themselves to be taken at their face value, every industrial failure and reorganization would be of this class. But the diagnosis of the corporation is seldom correct. Other more fundamental causes usually underlie the withdrawal of credit. In some few instances, however, an unmanageable floating debt is the fundamental cause, just as the corporation's officials declare, but its existence is to be attributed much more probably to the stupidity of the management in allowing the debt to pile up than to the obstinacy or limitations of the banks.

It should be noted that as the central motive of the reorganization plans, described under this type, is to bring into control an unmanageable floating debt, the issue turns quite as often on the methods of obtaining new money as on the rearrangement of the financial structure. The methods, in general, of obtaining new money were discussed in the earlier part of this chapter.

The crux of all reorganizations of this class is, obviously, the means to be taken to pay or to fund the floating debt.[14] A receivership is nearly always resorted to in order to prevent the possibility of attachments, so that there is ample time to consider the means available. If there is no mortgage on the property of the company, the easiest plan to execute—and for that reason the one most frequently followed—is to sell an issue of first mortgage bonds to bankers, and with the proceeds pay off the holders of the floating debt.[15] If the management and the stockholders are unwilling to do this, or if there already exists a mortgage on the property, then a reorganization has to be carried out which involves a direct as well as an indirect sacrifice on the part of the old security holders. In other words, the old stock or bondholders, or both, must suffer an assessment and take new junior securities in return; and with the proceeds of the assessment a part, or all, of the floating debt can be paid off. This is merely the use of the general principles already discussed under railroad reorganization expedients, except that no particular effort is made to decrease the fixed charges.

---

[14] As stated in a previous note, these expedients were discussed earlier. No attempt will be made to repeat them here.

[15] As in the American Malting Company case, Book I, Chapter III, note kk.

One feature of industrial reorganization plans of this class intended to do away with an unmanageable floating debt, deserves at least passing notice. It is the provision in the vast majority of such plans to force the holders of the debt to take securities as a part of their claims. The old noteholders and merchandise creditors are asked to accept some percentage, perhaps 50 per cent, of their claims in cash and the rest in long-term notes—usually of various maturities. The creditors ordinarily accept this compromise. They recognize that by forcing the corporation into bankruptcy they can undoubtedly secure the collection of at least a part of their claims, but the remaining part will be forever lost. Whereas, if they show a willingness to co-operate with the stockholders to the extent of funding a part of their debt into one-, two-, or even five-year notes they give the stockholders an opportunity to work out the rehabilitation of the company, and with its rehabilitation the creditors can ultimately secure the full payment of their obligations. At least, this is the kind of argument advanced to them and to which they are usually amenable.

Reduction of Fixed Charges.—The third class of industrial reorganizations, which are consummated for the avowed purpose of lessening the fixed charges, are invariably the result of failure. If the failure is not serious, or if the corporation has merely shown a continued low earning power while its affairs have never reached a serious crisis, it is sometimes possible to induce bondholders to consent to a lessening of the principal and interest of their bonds.[1] But ordinarily bondholders will not endure even a nominal sacrifice without coercion, and the various steps of default, receivership, and foreclosure sale have to be followed in order to compel the bondholders to submit to a lessening of their principal and interest. When such steps are necessary, the industrial reorganization, as far as the plan is concerned, differs but little from the typical railroad reorganizations discussed in the previous chapters. There is, perhaps, a little greater tendency to deal harshly with bondholders in requiring them to exchange bonds for stock, but the general principle that industrial enterprises ought not to have bonds in their financial plan is ample excuse for taking advantage of the opportunity of a reorganization to eliminate entirely the funded debt. At all events the principle holds true, as in railroad reorganizations, that the corporation must be relieved from the burden of fixed charges in order that it may strengthen its own internal organization and its mercantile credit. Permanent strength can be obtained only through a period of rest and reconstruction. And this principle, in spite of the varying circumstances of its application, must be the paramount motive in every industrial reorganization where failure is to be attributed primarily to a burden of fixed charges.

---

[1] The National Starch Company found itself unable to meet the interest on a 6 per cent bond of one of its subsidiary companies. The Corn Products Refining Company, which owned the stock of the National Starch Company, consented to guarantee the principal and interest on the

New Preferred Stock Issues.—In those reorganizations involving a decrease or the entire cancellation of the funded debt, the problem always turns on the kind of security the bondholders are willing to accept. If the security offered is not satisfactory to them they are in a position to force the liquidation of the assets of the corporation. This result would give the bondholders the little that there was and the stockholders nothing. Even at the time of involuntary reorganizations, therefore, some advantages must be attached to the new stocks offered in exchange for the old bonds—or the stockholders must otherwise strengthen the corporation's credit—else the

---

underlying Starch bond, provided the bondholders submitted to a 16⅔ per cent reduction in the principal of their bonds and a lowering of the interest rate from 6 per cent to 5 per cent.

bondholders will not accept them. These advantages are, on the one hand, a heavy cash payment by the old stockholders into the treasury of the new company in exchange for a second preferred or common stock, and, on the other hand, the acceptance by the old bondholders of a new first preferred stock or an income bond. The rate on the contingent charge security offered the old bondholders is ordinarily a little higher than that carried by the old bonds. A higher contingent rate is exchanged for a lower fixed rate.

In six industrial reorganizations in which bonds were exchanged for stock five of the stocks were preferred carrying equal or greater charges.[16]

Furthermore the new preferred stocks are seldom immediately cumulative in their dividend demands; yet, in order to protect the new preferred stockholders from the avarice of the common stockholders who maintain control, the preferred stock dividends are often made cumulative after a period sufficiently long to enable the reorganized company to have fully regained its credit.

All these principles are well illustrated by the reorganization of the International Steam Pump Company in 1915. This company was formed in 1899 as a combination of some steam pump plants, including some of the best in the country. It had no bonded debt of its own, although a subsidiary had debentures outstanding of about one million dollars. During the earlier years of its history it is to be considered as one of the more successful of the so-called "trusts." The 6 per cent cumulative dividend on the preferred stock was paid continuously down to May, 1913, and was, at one time, quoted as high as 95 per cent on the New York Stock Exchange. In 1906 the company embarked on an era of expansion through the purchase, at a factitious figure, of the Power and Mining Machinery Company. In 1909 $9,500,000 First Mortgage Bonds were issued to fund an accumulation of debentures and floating debt. Nevertheless through the misdirected efforts of the men who assumed control—apparently unfamiliar with the steam pump business—this new period of broadened activity resulted in failure.

---

[16] Dewing, A. S., Corporate Promotions and Reorganizations, 608 Table 19 (1914).

Just before the failure a committee of the Henry R. Worthington preferred shareholders (a subsidiary of the International Company) reported "that because of ill-considered or interested advice, or bad management your company has been loaded with a very large indebtedness, affecting your interest, the propriety of which may be seriously questioned." [17] In the resulting reorganization a new company was formed without bonded debt. The old stockholders, both preferred and common, were assessed $12 a share. In return for their cash assessment they received new first preferred stock, and for their old stock a small allotment of new common stock. The old 5 per cent First Mortgage bondholders were granted new 6 per cent second preferred stock which was non-cumulative for the first three years and cumulative thereafter.

Treatment of Common Stockholders.—The common shares in industrial reorganizations, whatever their type, undergo the same variety of treatment as prevails in the treatment of the senior securities. Sometimes, as already pointed out, the holders of the common shares of an embarrassed industrial are in a more important position strategically than the apparent value of their fast vanishing equity would seem to imply. Under such circumstances they are able to exact an interest in the reorganized company as the price of their co-operation. This was apparent in those cases already cited of emergency financial adjustment following the business reversion of 1920. Ordinarily, however, common shareholders receive scant consideration.

A Study of Industrial Reorganization Plans.—A study was made of the reorganization plans of 178 separate industrial reorganizations occurring between 1913 and 1924.[18] This list is a fairly complete selection of all the industrial readjustments and reorganizations, involving a distinct financial readjustment, that aroused some measure of public attention.

---

[17] Woodward Committee Report.

[18] Study of Rutherford, G. H., and Hageman, H. C., Harvard Graduate School of Business Administration (1925).

Following the plan used in discussing the treatment of the common shareholder in railroad reorganizations it is possible to divide these 178 reorganizations or readjustments into different groups in accordance with the method of treatment.

The following table shows the results:

Common Stock	Number	Percentage of Whole
New securities given without assessment.	76	43%
Optional assessment	14	8%
Assessment	31	17%
Extinguished.	57	32%
	178	

The comparatively low percentage of cases in which the common stock was extinguished—less than a third—might seem to be explained by the greater leniency to common shareholders shown in the readjustments following the business reversion of 1920. This is not, apparently, the complete explanation, for the common stockholder was but little less leniently treated in the later than the earlier reorganizations of the period—especially in regard to the extinction of the common stock.[m] The better treatment of the common shareholder, in these industrial reorganizations, as compared with his treatment in railroad and traction reorganization is probably due to the fact that his equity, owing to the absence of funded debt, was probably larger to start with and his voluntary co-operation was more necessary to the success of the plan. At all events he seems to have had a larger stake to begin with and comes out with a larger interest in the end.

---

[m] This is shown by the following table (all expressed in percentages of the total cases occurring in the respective periods):

	New Securities Given Without Assessment	Optional Assessment	Assessment	Extinguishe
First period 1913 to 1918 (92 cases) .	38%	9%	22%	31%
Second period 1919–1925 (86 cases) .	48%	7%	13%	32%

CHAPTER IX

CREDITORS' COMMITTEE REORGANIZATIONS

Post-War Deflation.—Following the sudden business reversal of the summer of 1920 manufacturing and distributing businesses throughout the country, almost without exceptions, found themselves confronted with a declining volume of sales, accompanied by declining prices, while their bins and their shelves were still loaded with commodities purchased at a war level of prices. By the end of 1920 the precipitous drop in prices and the "buyers' strike," so called, involved a marking down of large inventories to their current value which threatened to result in a January 1, 1921, balance sheet that would make bankruptcy or receivership inevitable. Even old established well-known corporations with valuable trade marks and a demand for their products not sensitive to whims of the public taste, suffered along with other corporations the products of which were, by their very nature, subject to abrupt and unforeseen fluctuations in demand. The Quaker Oats Company had in January 1, 1920, gradually built up a surplus of $11,565,000 through the nineteen years of its existence. Its business was thoroughly established. It had no bonds, and its current borrowings were less than 50 per cent of its quick assets. By January 1, 1921, this surplus was reduced to $1,263,000—largely through the decline in the market value of its inventories—and most of this loss had occurred during the last third of the year. The profits of twenty years were practically extinguished by the losses of a few months.

New Device for Rehabilitating Businesses.—Nor was the case of the Quaker Oats Company extreme. Large shoe factories and small shoe factories, cotton and woolen mills, automobile concerns and mail order houses were all stunned by the sudden shock that seemed to paralyze our economic life. It was currently assumed at the time that all these businesses were only temporarily embarrassed and that the next upward swing of the industrial pendulum would bring into existence conditions under which the businesses could right themselves. All that was needed, in every case, was time—time and rest. Consequently the whole problem of dealing with the failures and the threatened failures of 1920-1921 was the problem of dealing with a temporary situation capable of curing itself if the danger of court action could be removed—a kind of self-limiting disease, as the modern Aesculapian would call it.

The problem of dealing with this situation, although simple in its statement, became immediately one of great and serious moment to our economic life. To answer it the business world brought suddenly into existence a device for rehabilitating or reorganizing a business without the intervention of the court hitherto but little used. This was the creditors' committee. It assumed such great importance in the business world, in the years following 1920, that it deserves exhaustive consideration.

The problem of dealing with the temporarily embarrassed business has always been one of great social and economic importance. It is a problem of economic conservation incident to mitigating the intensity of booms and panics, to leveling the fluctuations of business and tempering its fits and starts. In that respect the subject is of far greater importance than an historical account of its use in 1921 would imply. That some kind of widely acknowledged and easily applied method of dealing with embarrassed businesses must be available to the community during times of storm and stress is too obvious to need comment. The widespread recognition of the importance of the so-called business cycle has emphasized the susceptibility of business enterprises to the fluctuations of general economic conditions. We know that a business may be in temporary difficulties through lack of executive foresight while it is at the same time fundamentally profitable and sound. Such embarrassments arise by reason of the failure of executives to think as economists, to interpret correctly cyclic changes in the operation of the race-old law of supply and demand. But unfortunately—perhaps more unfortunately for society than for themselves—otherwise able executives are not economists. They suffer from a kind of myopia resulting from a concentration of vision upon their individual business problems. Unexpectedly, in their fools' paradise of seeming prosperity, cyclic changes in the general economic background visit upon them sudden embarrassment.

Less Wasteful Methods of Dealing with Embarrassed Concerns.—A hard and fast line of separation between a clearly successful and a failed business, admitting no twilight zone or shades of grey, does not exist, if it ever did exist except in the archaic vocabulary of business law. To force all businesses, whether public or private in character, through the bankruptcy court because they cannot find the means at some crucial time to pay their obligations, involves economic waste—aside from the individual injustice—which our present social order cannot tolerate. Accordingly, various expedients have been devised which it was hoped would prove less destructive and socially wasteful than the traditional legal processes. The increasing coherence and interdependence of all businesses large and small has accentuated the importance of any means, within or without the law, that may ease the shocks of business failure and conserve the individual business organization if not the individual business capital. All this is obvious; but a further question has developed whether or not business executives can solve this problem without even the form of legal assistance. For it is a matter of considerable social importance to decide whether an embarrassed business can be managed better by a court or by a committee of creditors.

Creditors' Committee Contrasted with Bankruptcy Court.—The surrender of an embarrassed business to a committee or individuals chosen by the creditors and possessing full executive power voluntarily extended to it by the old proprietors of the business, stands in sharp contrast to the ordinary court receivership. Neither the creditors' committee, nor the responsible executive acting under it, possesses the legal power necessarily held by the court receiver. On the other hand, the creditors' committee and its chosen executives may possess, far more than the court receiver, a freedom of action, a quickness of response and a ready adaptability to the kaleidoscopic changes of an embarrassed business. Such mobility and quick resourcefulness cannot practically nor even conceivably be given to a receiver appointed under our present equity practice. The court receiver is, no doubt, fortified by the ultimate sanctions of the law, but he suffers by reason of the law's slowness of response and by his knowledge of legal precedent rather than business expediency. The creditors' committee receiver, on the other hand, has no power but that voluntarily given him, but he has the nimbleness of a free agent.

Relatively new as was the creditors' committee receivership in 1920 and 1921, the device of turning a business over to a committee of creditors, at a critical juncture in its history, has been tried many times in the past. These early instances were confined to small businesses, and the bankers were but little concerned in the creditors' management or in the outcome. They took the attitude that if someone other than the proprietor could work out a solution of the difficulties, they would ultimately get their loans paid. If not, they could at least put the business through the bankruptcy court, in which case they would be no worse off, probably, than if there had been no friendly efforts to prevent acknowledged failure. In the case of the threatened failure of a large business, certain creditors would endeavor to effect a compromise with others; and in many cases, even after the appointment of court receiverships, committees of creditors would seek to effect a general compromise without subjecting the property to a foreclosure sale under a decree of the court. This applied to large as well as small enterprises. In the period from 1883 to 1887, court receivers were appointed for numerous small railroads—and were later discharged without subjecting the property to a foreclosure sale. In the decade from 1889 to 1899 there were no less than twenty railroad systems—including the Baltimore and Ohio and the Missouri, Kansas and Texas—which were reorganized without foreclosure. These roads aggregated between four and five thousand miles of line, and represented over $300,000,000 in securities.

Resort to Creditors' Committees.—Notwithstanding a growing tendency on the part of the creditors of an embarrassed business to work in harmony, with the purpose of carrying on the business as a kind of trust estate rather than liquidating it through the bankruptcy court, it was not until the period following the panic of 1907, that creditors' committees were even recognized as means of dealing with embarrassed businesses. Certain sections of the country, particularly, had developed the creditors' committee method of solving business difficulties more than elsewhere. In the south and southwest the method had been seldom used; and even in New York it was not tried unless the conditions appeared to be markedly favorable for its success.

During the period of business readjustment following the reaction of 1920 the creditors' committee method of dealing with embarrassed businesses of considerable size became well nigh universal throughout the country. The writer's attention has been drawn to the case of a western bank which had representatives on 88 committees at one time. So general, indeed, did this course become that such phrases as "in the hands of the banks" or "in the hands of the creditors" almost entirely superseded in the vernacular of the street the old phrase, "in the hands of a receiver." Undoubtedly the court receiver was used in certain sections of the country, even for large failures, when the advantages of the creditors' committee were not understood or clearly apparent; but taking even these exceptions into account, it is no exaggeration to say that three-quarters of the business embarrassments, following the reversion of 1920, involving more than a hundred thousand dollars of liabilities, were handled by committees of creditors rather than by court-appointed receivers.[a]

There are two circumstances that together very largely explained the prevalence of creditors' committees during this last crisis. These had to do with the manner in which the reversion of prosperity affected individual businesses and with the influence of the federal banking system. Business difficulties were largely concerned with a sudden stoppage of sales, accompanied by a fall in inventory values. The Federal Reserve System gave the banker-creditors a feeling of confidence in their own powers of resistance, which enabled them to continue and sometimes increase loans to embarrassed businesses.

Inflation Preceding 1920 Crisis.—The elementary and fundamental causes of business reactions are probably the same whether we consider the nineteenth or the twentieth or any other century. Running through each great crisis are certain common characteristics which seem to affect most of the businesses that suffered during the reaction. In 1920 the immediate and obvious cause of a large percentage of the embarrassments was the presence of excessive inventories and contracts to purchase raw materials, all based on inflated war prices. Tanneries were overstocked with costly hides, at a time when leather could be sold only at prices below the cost of production; paper mills had great wood piles while the price of the finished product was falling precipitously; merchants had their shelves loaded with costly inventories when the public would buy, if at all, only at pre-war prices. Meanwhile the running expenses of the business continued. Furthermore, too, loans at banks and acceptances in the hands of mercantile creditors fell due. It was as if a stroke of paralysis had suddenly struck down the whole framework of business enterprise.

---

[a] In answer to question 1 of the questionnaire (see paragraph 1, page 1140) all replies, except two, stated that creditors' committees had been used in most cases for embarrassments of large businesses. Of these two, one, from a Pacific Coast city, stated that they were used but little and the other estimated "about 40 per cent." The remaining replies varied from "more than 50 per cent" to "100 per cent of the large failures." Several banks stated their estimate in terms of percentages, 1/40 per cent, 1/70 per cent, 1/80 per cent, 1/90 per cent, 1/95 per cent, 2/100 per cent; average 81 per cent.

The condition of the banks was a factor of great importance. The reversal of business of the autumn and winter of 1920 was the first so-called panic since the establishment of the Federal Reserve System. Although the policy of the Federal Reserve Board, dominated presumably by petty political motives and sectional prejudices, was very largely responsible for the inflation period to which the costly inventories owed their origin, the machinery of the system itself provided the means to enable banks to extend help to overextended businesses. Heretofore, in the presence of a sudden reversion, institutional banks had first to look to the maintenance of their own credit, even though deserving customers were thrown overboard. In 1920, however, by means of rediscounts the credit cover could be made to expand suddenly to protect customers; and this placed at the disposal of banks a means of alleviating the distress, provided the fundamental and abiding principles of sound banking permitted. The banks had the power at their disposal; it was merely a question of economic expediency and banking wisdom. The creditors' committee, formed for the purpose of carrying and eventually liquidating the costly inventories, was the bankers' well nigh universal response. Had they not made this response, business mortality in the autumn and winter of 1920 would have been simply stupendous. But one cannot say that the Federal Reserve System was entitled to the credit for the services rendered to the community by the creditors' committee during the crisis, for had not the system contained the easy means for inflation and overexpansion, there would have been vastly fewer business embarrassments due to inflated inventories and far less necessity for creditors' committees or any other palliatives. The bacilli in the system generated the toxins for their own destruction. A healthy organism, however, would prefer not to have the disease, even though the disease, self-limiting as it were, created the means for combating its ravages.

Extent of the Resort to Creditors' Committees.—In order to ascertain the extent and character of these creditors' committees an investigation was undertaken in the summer of 1922, when the general attitude of business men and bankers appeared uniformly favorable toward creditors' committees. Considerable reliance was then placed upon the tabulated results derived from sending a brief questionnaire to the presidents of fifty of our larger commercial banks located in different commercial centers of the country. The experience of these bank executives, recorded at the time when the popularity of creditors' committees was at its height, will suffice to show the operation of the creditors' committees in the most favorable light.[b]

Creditors' committees were by no means confined to manufactures nor did all manufactures seem to suffer alike in the reversion of 1920. Businesses engaged in the manufacture of a luxury or building material requiring the purchase of large stocks of raw material and requiring a considerable period for the conversion were in the most serious plight—automobile tires and fabricated lumber, for illustration. On the other hand, such industries as meat packing were able quickly to shorten sail and adjust themselves to the relatively small curtailment of consumption. Few water, electric, or gas companies of importance passed into the hands of a creditors' committee in the autumn and winter of 1920—their time of storm and stress was during the preceding period of rising prices. Creditors' committees were frequently used in the war period to adjust their difficulties. One must remember also that a general depression creates a crisis in innumerable mismanaged businesses, which had maintained themselves during the period of inflation and rising prices. They sink, or should ordinarily sink, in the first squall. But during the period in question they were kept alive by creditors' committees, the members of which were unable to distinguish between businesses fundamentally sound and those which should be closed. Creditors' committees were often used to manage the affairs of embarrassed individuals as well as partnerships or corporations. For example, it was used to protect a man who speculated at the same time on the stock market and in real estate.

---

[b] In order to elicit specific replies, the following rather concise questions were submitted in the questionnaire above referred to:

1. "With reference to the business failures and embarrassments that came under your observation, what proportion were taken care of by committees of creditors rather than court-appointed receivers?
2. "Did you serve personally on any of these committees, and if you did, what was your observation of the way they worked?
3. "Did the committee ordinarily handle the business itself, or appoint a 'Business Doctor' to act for them?
4. "Do you think these creditors' committee receiverships have been on the whole an improvement over the court-appointed receivers?
5. "What in your observation was the greatest advantage of these creditors' committee receiverships? What their greatest disadvantages?"

The replies will be referred to in the course of the discussion as questionnaire replies. It was a matter of great surprise that so large a proportion of illuminating replies were received and that the results they indicate were as uniform as they seem to be. The results of the study of the answers to these questions were incorporated in an article in the *Harvard Business Review*, October, 1922. Nevertheless, the conclusions reached in this article, written in the summer of 1922, are diametrically opposite to those reached at the end of this chapter, written in the spring of 1926. Hindsight is better than foresight!

Formation of Creditors' Committees.—The formation and operation of the typical creditors' committee may be very briefly summarized. A business enterprise engaged in the conversion of a raw or semi-fabricated material into a finished product found itself suddenly confronted with a recession of new orders. Quite often this sudden stoppage of new business was accompanied by cancelation of orders and the bold repudiation of contracts. Suddenly, too, the prices at which the finished goods could be sold, if at all, on the open market, fell precipitately; and at the same time the replacement value of the raw materials in the warehouses and those being taken under old contracts showed astonishing losses on mere inventory adjustments. In the statements to the banks, large surpluses of the preceding year were either entirely extinguished or else very much reduced. Businesses could no longer show the requisite ratio between quick assets and outstanding loans, so that the banks, naturally timid in the presence of a sudden crisis, demanded either a reduction of borrowings or else an increase in resources. Sometimes the proprietors themselves put in more money from their private funds, sometimes the business was able to sell or mortgage fixed assets, but more often nothing could be done. If the bankers were to force the distressed business to liquidate its salable assets, the proceeds would not pay the loans; on the other hand, if the business could be continued and the raw materials gradually realized upon in the form of the finished product, there was hope that the loans could be met ultimately.

Such was the condition in which the distressed business and its creditors suddenly found themselves. The enterprise could be liquidated from within or by the bankruptcy court, but the loans could not be paid; on the other hand, if the enterprise could be continued the loans might be paid. But to continue the enterprise new money must be subscribed by someone to meet the payroll, fixed charges, and the continuing overhead. This the banks could do, by reason of the Federal Reserve Banking System, provided they should be fully protected in the new money advanced; and this could be done only if the then existing creditors, with one accord, consented to subordinate the existing debts to those represented by the advances in money. This, of course, involved the extension of maturity of the old debts as well. But, the creditors would agree to this subordination and extension only if they controlled the business, particularly the financial policy. While the larger bank creditors were usually looked upon to supply the new money, the practice was followed, in many cases, of assessing all the creditors in proportion to their claims. Ultimately all the advances would fall back on the Federal Reserve System because the mercantile creditors would obtain their share of the new money from the banks, which would, in their turn, rediscount these particular liabilities or other liabilities. Even when the new money was obtained by proportionate assessments the banks practically always had to assume one or more of the assessments which a mercantile creditor, himself embarrassed, could not meet. The creditors' committees came into existence, therefore, to make articulate this control.

The formation of a creditors' committee for the management of an embarrassed business involves therefore three conditions. The existing creditors subordinate and extend their claims, banks advance sufficient new money—entitled thereafter to a prior lien—to continue the business, and the management passes to the control of a committee chosen from among the creditors. From the legal standpoint these three conditions may be embraced in a single tri-partite agreement as between the stockholders or proprietors of the business, the general creditors who extend and subordinate their claims, and finally the bankers or the managers of a banking syndicate who propose to advance the new money. Or there may be a series of agreements entered into as one condition after another has to be met. At all events the original agreement provides that as soon as all the debts have been paid, or adequately provided for, the business shall be returned to the proprietors.[c]

---

[c] In order to make this record complete a simple form of creditors' agreement is inserted. This was used to secure the control and extension of debts in the case of an embarrassed electric light company. The names have been changed, otherwise the document is the same as used.

The Essex Electric Trustees of Ohio represented the holding company for the four electric companies. In order to secure administrative control of the entire organization, a majority of the stockholders of the Essex Electric Trustees created a voting trust of which three of the creditors, Messrs. Field, Wald, and Shedd, were the appointed voting trustees. This document was the ordinary voting trustees' agreement and need not be reproduced.

In addition to the five large creditors who signed at the end of the agreement, three other smaller creditors with debts aggregating less than $5,000 signed at a later time. Money was provided by assessment on all the parties signatory to the agreement, which was used to pay off, at approximately forty cents on the dollar, all the smaller creditors whose claims were less than $1,000 and in addition one claim of $2,500. In addition to the amount requisite to compromise these smaller claims, money was advanced by assessment to operate the companies. Altogether $47,000 was so raised. In return for the assessment the first mortgage prior lien 7 per cent bonds were given at par. These bonds, obviously, were a first lien on the entire property and came prior to all the claims.

It should be noted that this particular agreement ran for a longer period than was usually the case with embarrassed manufacturing or mercantile businesses. As the concern was a public utility, it was felt that a longer time would be required either to put the company on its feet or else to sell it.

Membership of Committee.—The membership and personnel of a creditors' committee varied greatly. Five was the

---

"The Undersigned Creditors of the companies named below in Article 1 hereof (hereinafter referred to as the Companies) in consideration of $1.00 and other valuable considerations to each in hand paid, receipt whereof is hereby acknowledged, do hereby Sell, Assign, Transfer, Set-over and Convey to Fred Field, Albert Wald, George S. White, Byron D. Black and Warren Shedd and the survivors and survivor of them (hereinafter referred to as the Trustees), all their several claims against the Companies (the amounts and nature of which are or may be set after their respective signatures) in trust, nevertheless, for the purposes and upon the terms as follows:

"Article 1. The names of said Companies are as stated below in this Article 1 and they are or may be designated in the column headed 'Debtor Companies' at the end of this assignment by the letter preceding such Company in this Article 1.

A—Tremont Electric Light Company
B—Paris Electric Light & Power Company
C—Service Electric Light Company
D—Lafayette Electric Company
E—Essex Electric Trustees of Ohio

"Article 2. This assignment is made for the purpose of allowing time and opportunity to work out a reorganization, rehabilitation or readjustment of the Companies or any of them in such manner as to the Trustees, in the exercise of their best judgment, shall seem best for all parties to the end that the claims hereby assigned may be paid or discharged.

"To the end stated in the next preceding paragraph the Trustees are hereby granted full power to deal with the claims hereby assigned in their absolute discretion and as if they were absolute owners, including without limiting the generality of the foregoing, the right to take such action as they may see fit for enforcing such claims or to delay taking such action; to compound, compromise, allow time for payment or extend the time for payment of such claims with or without taking bonds, notes or other evidences of indebtedness or security for the same; to take stock, bonds, notes or other securities of the Companies or any of them in exchange for or in place of the claims hereby assigned, or any of them; to permit or cause or suffer the Companies or any of them to incur future indebtedness and other liabilities for operating expenses, additional capital requirements, and other purposes, which new liabilities may have priority over the claims hereby assigned; to pay, or permit or cause or suffer to be paid or secured in priority to the claims hereby assigned any other claims now existing against the Companies or any of them and in general to use the broadest discretion in dealing with the claims hereby assigned to the end that the Companies may be reorganized, rehabilitated or readjusted financially, provided, however, that no claim hereby assigned shall be dealt with as to give any claim hereby assigned, but only so that all shall be upon a parity and shall be entitled to share pro rata in the proceeds of any payments made to the Trustees on account of any such claims and in any securities received by the Trustees.

"Article 3. Any payments made to the Trustees or any of them on account of any of the claims hereby assigned shall be a full discharge thereof in accordance with the terms of such payment and the person paying shall not be under any obligations to see to the application of the money so paid.

most frequent number, although committees of as few as three and of as many as seven and nine members are met with. Unquestionably the smaller the membership the more efficient the

---

"Article 4. The Trustees may act by a majority with or without any meeting of the Trustees and any Trustee may resign by delivering his written resignation to the other Trustees or any of them, and the Trustees as at any time constituted may appoint a successor to fill a vacancy caused by resignation, death or other disability.

"Article 5. The Trustees may take advice of counsel in acting under this instrument and shall be absolutely protected in acting upon such advice, and the Trustees shall each be liable only for his own wilful malfeasance or default and not for that of any other Trustee or for any act or omission in good faith.

"Article 6. It is the intent of this instrument that it shall be interpreted liberally to the end that the Trustees may have the fullest and broadest powers, rights and discretion in dealing with the claims hereby assigned for the purpose of reorganizing, rehabilitating or readjusting the Companies or any of them to the end that the claims hereby assigned may be paid or discharged.

"Article 7. This trust shall terminate on June 5, 1924, and a majority of the Trustees may terminate it at any time prior thereto, and upon its termination the claims hereby assigned shall be reassigned to the assignors if the same are then in their present form, but if any thereof have been paid or exchanged for bonds, notes or other obligations, or otherwise changed in form then the signers hereof shall be entitled to share in all the property then held hereunder pro rata and the Trustees may allot the same in their discretion and may determine in their absolute discretion the value of the same for the purposes of such allotment and may sell all or any part for the purpose of alloting the proceeds in money and every such allotment may be made upon terms of such sums as the Trustees shall think proper being paid or allowed for equality.

"In witness whereof the undersigned have hereunto set their hands and seals this 5th day of June, 1919.

NAME OF CREDITOR

Ohio Power Company
By Charles S. Warren, Pres.
Washington Trust Company
By Richard W. Patterson, Treas.
Brown-Varney Company
By William M. Lawrence, Treas.
Mansfield Trust Company
By Harold H. Roberts, Treas.
Clinton Engineering Company
By John T. Weston, Pres.

Letter Designating Debtor Company	Amount of Debt	Nature of Debt
....	$52,000	Power Contract
....	26,000	Loans (demand)
....	35,000	Merchandise
....	45,000	Loans—time and demand
....	17,000	Construction contract"

work of the committee proved to be,[d] but it was often necessary to include all the large creditors in order to enlist their support and cooperation. In the case of large creditors' committees it was customary to select a small executive committee which met frequently and carried the detailed responsibility of the business. Again this executive committee often managed the business through its chairman. Various methods were pursued by creditors' committees in the management of the embarrassed business. In actual practice the representatives of the large banks, especially those which subscribed new money, were the most influential members of the committee and usually dictated the policy. So frequent, indeed, were the sudden embarrassments confronting the customers of large metropolitan banks that a few of these banks established a department, under the supervision of an officer, to which business troubles and so-called "frozen loans" were referred and which acted itself as a creditors' committee or else represented the bank on all such committees. In a few cases, where large commercial banks found themselves confronted with many cases of distress this department suddenly became large and important, with one of the highest vice-presidents in charge. He was assisted by a varied staff of lawyers, accountants, engineers, and so-called efficiency experts. Quite often when a bank having such a specially organized department was a large creditor, the other creditors merely withdrew and the bank's "sick business" department acted as the creditors' committee. Sometimes, again, the committee would delegate its powers to a single individual who made it his business to rehabilitate embarrassed business. Such persons have sometimes been alluded to as "business doctors." Frequently they were the paid employees of large banks; or they worked under a general retainer fee from several banks. Either a member of the committee or the "business doctor" became an integral part of the organization of the embarrassed business. This representative of the creditors, sometimes as treasurer, sometimes as comptroller, sometimes merely as a kind of inner office advisor, passed on all matters covering the routine management of the business. He acted as trustee for the receipts of the business and arranged that all the creditors should be dealt with alike and in accordance with the provisions of the creditors' agreement. After the continued observation of this representative the creditors' committee was able to determine whether the business showed clear evidence of recuperation or should be liquidated.[e] If the former decision was followed the committee continued its administration until the debts were all paid or the business reorganized according to a plan proposed by its members. And if the business was reorganized and the creditors forced to take securities instead of money, the committee supervised the reorganization and dominated the board of directors of the new company.[f]

---

[d] In the answers to question 5 of the questionnaire the most frequent objection to the creditors' committee was the clumsiness of dealing with intricate business problems through a large committee of otherwise busy men. This difficulty is undoubtedly real. (See page 1140.)

---

[e] The practice of employing a professional "business doctor" varied greatly. Banks and creditors' committees in Boston employed such persons quite frequently; this was true also in New York when the liabilities were large, the problems intricate and the number of creditors large. It is undoubtedly true, however, that the use of the so-called "business doctor" has been much exaggerated. A little over half of the banks reporting under question three of the questionnaire stated that the professional "business doctor" was not used at all within their observation. The others reported that he was consulted on certain problems, or else was definitely employed in a few cases. Only one bank reported the regular employment of a "business doctor" by creditors' committees under their observation. A few comments in regard to the so-called "business doctor" in answer to question three of the questionnaire show the attitude of some banks. " 'Business doctors,' so-called, charge a very high fee and give a poor quality of service." "The idea of 'business doctors' has of late been losing popularity due to the fact that the New York banks, under such circumstances apparently dominated the 'doctor' and the recovery under such treatment has not always been beneficial to banks not located in the metropolitan area." The suggestion, contained in this last statement, of lack of cooperation or unfairness, is somewhat unusual, as one of the most conspicuous results of the whole creditors' committee receivership movement seems to have been the development of cooperation and mutual confidence among the banks. However, individual experiences may have given different evidence.

[f] In the case of the Moline Plow Company of Illinois, a reorganization of a large embarrassed industrial business, bankers of Chicago and New York dominated the creditors' committee, prepared the plan of reorganization, carried it through and acted as trustees of the securities of the new company. The reorganization was eminently fair to all concerned and very economical; the whole cost was less than 1 per cent of the credit obligations. There was no underwriting by investment bankers and therefore no underwriting commissions. Over 97 per cent of the stockholders voluntarily

Advantages of Equity Receivership—Setting Aside Unfavorable Contracts.—When we come to consider the relative advantages and disadvantages of creditors' committee receiverships as compared with the more formal court receiverships certain difficulties present themselves in the comparison. At the outset we should weigh carefully three distinct powers which the court and the receiver appointed by it may exercise, but which neither the creditors' committee nor their representative can exercise. A court receiver may repudiate or set aside existing contracts of the business which he considers unprofitable; a court may set aside and exclude from participation in the final reorganization those creditors whose proof of their claim is inadequate; and finally, the taking over by a court of equity of the administration of a business precludes further actions by all creditors, those who were not parties to the motion under which the court assumed jurisdiction as well as those who were. Chiefly in these three particulars, perhaps, lies the peculiar and vital effectiveness of an equity receivership. Other differences of the nature of peculiar powers which the court receivers possess, not possessed by the creditors' committee, may be cited, but they are of less real importance, except in special cases.

Many businesses become embarrassed because of unfavorable contracts. Many businesses have in the past gone into the hands of court receivers in order to permit the receiver to repudiate an unfavorable contract.[g] Cowardly though such a proceeding may appear, in the light of an enlightened code of business ethics, the managers often found themselves confronted

---

assented, all the floating debt holders (except a few of the smaller ones paid off), and practically all the serial note holders. Altogether it was a complicated situation carried through with great skill.

[g] A considerable proportion of the court receivers appointed during the autumn and winter of 1920—the period of storm and stress—were appointed, not only because of the fall in the market price of inventories, but because of outstanding contracts to purchase large amounts of raw and semifabricated material. Fearful of the impending rain, and often prompted by bankers who saw the inevitable outcome, they resorted to the court as a legal expedient for mitigating the severity, if not wholly repudiating their destructive contracts.

by an unfortunate predicament. If the terms of the burdensome contract were lived up to, the fundamental assets of the business would be exhausted. The rightful claims of other creditors who had extended credit to the business on the basis of its continued solvency were in jeopardy. Although technically the business was, at the time, solvent, the continued execution of the burdensome contracts would result in its insolvency so far as the other creditors were concerned. Yet these other creditors were powerless to act on their behalf because their claims could not then be reduced to judgment. Under such circumstances the managers of the business, in good faith and prompted by laudable ethical motives, moved for the appointment of a receiver for the sole purpose of throwing the responsibility for repudiating the burdensome contract upon the court. Such a procedure is on the whole just; there is nothing highly moral in living up to the terms of a burdensome contract, if, as a result, other creditors suffer.

Yet, granting that the immediate cause of the financial embarrassment is the burden of an unfavorable contract, it was difficult, at the time, to see why a committee of creditors could not effect a settlement more easily than a court receiver. As a matter of course the holder of the unfavorable contract would be a member of the committee; and he would be conscious, throughout all the negotiations, that arrant obstinacy would be followed by the appointment of a court receiver. Business men are, by training and experience, conciliatory. Moreover, the holder of the burdensome contract would prefer to retain the good-will of the managers of the embarrassed business and the banking community rather than be the direct cause of forcing public disaster upon an otherwise solvent business. This is a matter of importance because the direct and explicit relief from a burdensome contract constitutes the most positive power a court receiver possesses not held by the creditors' committee. And if it appears that a creditors' committee can deal with such a situation more effectively than the court receiver, then the apparent necessity and usefulness of the ordinary court receiver is very much lessened.

Review of Creditors' Claims.—The second clear advantage that a court receivership has over a creditors' committee is that a court of equity can review with great thoroughness the validity of creditors' claims. Questionable claims, especially if based on bogus transactions, can be easily eliminated and excluded from participation in the proceeds of a subsequent sale or reorganization of the business. Here, as in the case of a creditor holding a burdensome contract, the ultimate power of the law has a finality not possessed by a committee, however hard the motive of expediency may be stressed.

This finality, however, might be secured ordinarily by an appeal of the ordinary processes of the law, without requiring that the whole business shall submit itself to a receivership. A creditors' committee, moreover, can adjust and "compromise" doubtful or excessive claims; it can "trade off" a certain liability against an uncertain asset.[h] It can weigh all these matters with a more accurate and decisive judgment than could the ordinary equity receiver. And a committee skilled in the artifices of adjustment can quite often effect a cheaper settlement of a claim which has legal validity but, because of business reasons, may be compromised. In other words the settlement of doubtful and excessive claims against an embarrassed business can be more quickly and often more cheaply adjusted by a creditors' committee.[i] And if satisfactory settlement cannot be arranged there is the ordinary procedure in law and equity to fall back upon in individual cases without throwing the entire business into the hands of the court.[j] This was the widely heralded "business man's settlement" theory that entered into all the discussions of creditors' committees.

---

[h] In one instance a creditors' committee chosen to operate a small paper mill effected an exchange of a strip of timber real estate which could not be sold or mortgaged, because of a defective title, for the cancelation of a considerable contract to deliver pulp wood at $19.40 a cord when the current market was then $11.00. After this particular "trade" was effected, the committee had no difficulty in arranging for the extension of all liabilities exceeding $5,000. The large liabilities having been taken care of, two bankers on the committee consented to advance to the company $25,000 each. The new money was sufficient to pay all the debts under $5,000 and to furnish sufficient quick assets until the time when enough money was forthcoming through the sale of manufactured paper.

[i] An attorney arranged for the sale of certain of a corporation's assets for which a large commission was agreed upon but remained unpaid. After the affairs of the corporation had been taken over by a bankers' committee,

Recalcitrant Creditors.—There remains, then, the third advantage that the court action was conceived to have over that of the creditors' committee. When a court assumes jurisdiction over the affairs of an embarrassed business all actions by recalcitrant creditors are stopped. The wolves are held at bay. And this applies to the large as well as to the small creditors; to matured claims as well as the unmatured; to secured as well as unsecured. The business can catch its breath. It can put its house in order beyond the clamor of threatening creditors and do this quietly and peacefully under the mantle of the court whose protecting arm extends to all jurisdictions. This is a very great advantage which the court receiverships possess over that of creditors' committees. There is no minimiz-

---

it developed that the attorney's firm acted as the regular counsel for a trust company represented on the bankers' committee by its president. The trust company held a large claim against the embarrassed business. Because of the close relations, the president was able to settle for about 35 per cent of the stipulated amount, notwithstanding the fact that the attorney could have undoubtedly proved his claim in an equity receivership and the total property of the embarrassed corporation far and above exceeded 35 per cent of the total liabilities.

[j] A good example of a kind of adjustment which gave to all parties the advantage of judicial rendering, without resort to a receivership, is represented by the following incident: A committee of creditors had taken over the affairs of a small public utility. The floating debt, represented by bank loans, personal loans, merchandise debts and unpaid power bills, amounted to more than twice the value of the property by any method of valuation. The net earnings were next to nothing. One of the embarrassing features of the whole situation was that a man, not a member of the creditors' committee and mildly antagonistic to it, held what he alleged to be a mortgage lien on certain essential parts of the public utility property. He threatened to apply for a receiver unless his claim was given priority over all the rest of the floating debt. The creditors' committee offered to appropriate a sum, not exceeding $500, to defray the legal expenses incurred by the creditor in an equity suit designed to determine whether or not his claim represented a prior lien on the physical property. Such a solution would have all the decisiveness of a proof of claim proceeding under an equity receivership and it would in no wise embarrass any other activities of the creditors' committee.

ing its importance or pretending that creditors' committees can hold recalcitrant creditors in line by other sanctions than that of persuasion. Business men may urge a creditor to "play in with them" and because of their prominence it may appear expedient for the creditor to do so. But the creditors' committee can exert no real restraint. On the importance of this actual power to maintain the "status quo" among creditors rests the unquestioned advantage of the court receiver. The whole issue, as between the creditors' committee and the court method of handling business crises, resolves itself into the relative importance of this advantage.[k]

Advantages of Creditors' Committees—General Mutual Confidence Engendered.—We now turn to the other side of the picture. Although the advantages of creditors' committees over court receivers stressed by different bankers ran along common lines the advantage or rather result of the creditors' committees which may be considered most notable was brought out only in a few replies to the questionnaire already referred to. It is the effect on the general economic situation. Cooperation and mutual confidence were engendered throughout the business community by the very necessities involved in making the creditors' committees function. This was in 1920, 1921 and 1922 when the financial conditions throughout the country were very sensitive. Shrewd bankers knew that a business could not be administered by a debating society; if the actions of the committee were to be affected by friction and petty jealousies, its end would be defeated. Bankers were forced to work together, and in harmony with conflicting interests. This is an intangible result, but it is one of far-reaching and permanent consequence. And this cooperation and mutual confidence sprung—like the citizens' committees of the western frontier—from the necessities of self-protection. There were no mutual uplift motives, wordy in expression but ineffectual in action, which prompted keen-sighted bankers to join together in order to salvage an embarrassed enterprise in which they were the joint heirs to its misfortune. It was the purely selfish motive of getting the biggest individual share—the basic and abiding principle of self-interest. But in carrying out this motive they were forced not only to help each other but also to alleviate, more than any other factor or circumstance, the severity of the reaction.[1]

---

[k] This is stressed by the answers to question 5 of the questionnaire referred to under footnote (b). Practically all the bankers replying stressed the great difficulty experienced in keeping all the creditors in line.

Ethical Motives.—The ethical and social aspects of a creditors' committee cannot be altogether omitted from consideration. It often happened that competitors joined with bankers to assist in the rehabilitation of a competitive business, knowing that their own trade strength would be weakened in proportion as the suffering business was helped. Bankers who had no direct obligation to assist a weak business have, very frequently, devoted large amounts of time and effort to committee work in the interest of the town or section in which their interests lie. For illustration, a Grand Rapids furniture manufacturer, who had treated the ordinary rules of bank courtesy with the utmost contempt, found himself in financial difficulties. Probably every banker of Grand Rapids had a profound dislike for the manager of this particular business and yet in the hour of need they came to his rescue with credit and advice because of their obligations to the main industry of their city. The National Association of Credit Men some time ago established a series of canons of ethics.[1] These covered a variety of situations. One of them ran as follows:

---

[1] A banker from Detroit, where the business community certainly had its share of troubles, expressed the idea in a manner with which the writer fully agrees. "The spirit of cooperation which these creditors' executive agreements engendered in this country will be worth more to business generally in the days to come than we can in our minds compute. Two years ago it did not seem possible that business of any character could carry the burdens which were being put upon it. But the years have passed, and every business man, merchant, manufacturer or banker, who has been through the period, has a better understanding of his country, its resources, and what it can do in an emergency greater than has ever occurred to him could be met."

This advantage was stressed by all the bankers who replied to the questionnaire. Even the single reply which stated that the creditors' committee was not an improvement over the court receivership admitted that "the administration of the estate by creditors' committees has sometimes been more economically handled."

> In times of trouble, the unfortunate business man has the right to appeal to his fellow business men for advice and assistance. Selfish interests must be subordinated in such a a case and all must co-operate to help. If the debtor's assets are to be administered, all creditors must join in co-operating. To fail in such a case is to fall below the best standards of commercial and association ethics.

Another one ran—

> It is always improper for one occupying a fiduciary position to make a secret profit therefrom. A member of a creditors' committee, for example, may not, without freely disclosing the fact, receive any compensation for his services, for such practices lead to secret preferences and tend to destroy the confidence of business men in each other. No man can serve two masters.

Efficiency and Economy.—The most clearly obvious advantage of the creditors' committee receiverships and the one mentioned by all the bankers in the replies to the questionnaire is their efficiency and economy. While the ordinary banker is not familiar with the routine administration of a manufacturing or mercantile business, he invariably possesses the saving grace of knowing his limitations—something which the court receiver, especially if he is a young lawyer in search of a subsidy, does not know. Legal experience teaches a man caution, respect for precedent and authority. The business man who can best handle a crisis needs initiative, courage, and independence of judgment. He must do things that have not been done before; and he must do them quickly and in a way to inspire the confidence of his associates and subordinates. And the cost of a creditors' committee receivership is low compared with that of a court receiver. It has become the current view among bankers that their service on a creditors' committee represents a voluntary contribution to the needs of the general situation. As they are themselves creditors who will be benefited by an economical management of an embarrassed business, they are working for themselves while they are working for others. It is therefore common for the members of the committee, notwithstanding the value of their time, to make no charge for their services. They will scrutinize very carefully expense accounts and reduce to a minimum attorneys' fees and the charges of experts. And they will turn the business over to its proprietors as soon as possible and not, as court receivers and their attorneys are prone to do, prolong the distress for selfish motives.[m] This advantage is real and indisputable.

---

[1] Referred to in Heermance, Edgar L., The Ethics of Business, 109 (1926).

Less Unfavorable Publicity.—Creditors' committees create less unfavorable publicity than court receiverships. While it is true that very few business embarrassments can be kept secret in the strict sense of the word, when commercial agencies and the credit departments of banks make it their business to concern themselves about other people's affairs, it is nevertheless true that there is a real and significant difference between the publicity of business misfortunes that is confined to credit agencies and banks and the publicity that of necessity attends all court proceedings. The former kind of publicity is restricted to that relatively small group of the whole business community which is concerned with the credit standing of a business; the latter kind of publicity includes not only the credit fraternity, but extends also to that wider background of community knowledge significantly called "the public." The distinction is of far greater importance to some kinds of business than to others, but it is present to a greater or less extent in every case. And it must be carefully weighed in considering the treatment of an embarrassed business.

---

[m] A public utility through mismanagement became distressed. It consisted of two parts, of approximately equal size, but situated in two adjoining states. One part was taken over by a creditors' committee, the other part by a court appointed receiver—a country lawyer of limited practice and unfamiliar with the public utility business. The latter retained his position for approximately a year after he was told that the debts could be paid and six months after a representative of the utility petitioned the court to be allowed to pay the debts and have the receiver discharged.

This point was tersely expressed by a banker writing from Cleveland. The creditors' committee administration "can be terminated at any time and usually is terminated as soon as the company's affairs are again in sound condition as the men who are voluntarily serving are most anxious to avoid the work as soon as the management of the company is again in shape to resume entire control. This situation is usually reversed under a receivership where the receiver and the receiver's attorney are most anxious to continue their services."

The disadvantages attendant upon the wide publicity of a business's embarrassment are subtle and far-reaching. There is the perfectly obvious fact that widely heralded misfortunes leave a deep impression upon bankers and credit men. The minds of the banker and credit man are like sensitive but soft wax; contemporary affairs make a quick impression, but only those impressions live beyond a narrow present which are re-enforced and set. Consequently a business crisis which has been handled smoothly and quietly by a creditors' committee, although all the details are known and recorded in credit files, can come into the general market for credit quicker and with greater assurance than if the affairs had been handled by a court receiver.[n]

Disadvantage of Outside Receiver.—There are other considerations. The morale among employees can be properly maintained only when there is one master. If a court appoints the old proprietor or chief executive as receiver, there may not be a division of loyalty, but when an outside party, especially a lawyer, unfamiliar with the business, assumes executive control there will arise inevitable friction with the higher salaried officers, and after a while loss of morale throughout the entire organization. A lawyer-receiver, suddenly raised to executive control over a business of which he knows nothing, likes to show his authority. He knows that this authority, arising out of his judicial appointment, has an absoluteness about it not claimed by the ordinary business executive. Employees at all levels will ask themselves if all the publicity and notoriety attending the public disclosure of their employers' troubles does not affect them. The men in the forecastle as well as the mates do not like to be ashamed of their craft. They do not like to see their business held up to public criticism and even ridicule. Often the employees themselves will join the public and give voice to "things we see" that are not generally known, or apologize sheepishly and say they are looking elsewhere for jobs. This applies particularly to the subordinate executives—assistants in the office, superintendents in the factory, or salesmen on the road. On the other hand, when the only change which the employees see as a result of rumored difficulties is the presence of a new "comptroller" or even treasurer, while the rest of the personnel remains the same, there is little comment. The employees of a business judge by outward signs, and as the creditors' committees make every effort not to disturb the established routine there is no general uncertainty and no loss of morale.

---

[n] One banker (answer to questionnaire, question 5) stated this principle clearly and precisely as follows: "The injury to the companies' credit (by the creditors' committee), is nominal as compared with the very great injury in the case of a receivership." See footnote (b).

Committee's Lack of Courage.—With the balance between the advantages of court receiverships and creditors' committees, so apparently heavily weighted in favor of the creditors' committee, it would be presumed that court receiverships would probably be no longer resorted to in the next general business reversion. This was the general feeling in 1922—in which the present writer shared. But he has since changed his mind.

There are several reasons which have led to this change of opinion toward committee reorganizations since 1922. It may be surmised that a great many others, particularly institutional bankers, have also grown distinctly less enthusiastic in their attitude toward committee reorganizations during the last three years. These reasons have to do, perhaps, more with human nature than with the fundamental economic aspects of business rehabilitation, but they are nevertheless as significant.

The first is the lack of courage of the administrative committee. It was found, almost from the outset that the committee failed to distinguish between what one might call the temporary and the abiding causes of failure. The former were, in every case, strikingly obvious. They were the causes which lay at the basis of the then widely present reversion of our credit structure, and were, to a large degree, common for all the ailing businesses with which the bankers had to deal. The abiding causes were usually deep seated within the business. They had long existed although war inflation had held back their effects, and they could be cured only after a detailed and painstaking investigation of the business.

The committees tried to apply the same remedy to all their patients. They prescribed a period of rest during which the committee or the manager appointed by it could slowly liquidate the inventories while creditors were held aloof by mutual consent. This remedy effected a permanent cure among those businesses in which the sudden decline in inventories was the only cause of distress. But experience soon showed that in the vast majority of cases this was merely the outward sign of long continued, stupid, inefficient, or even dishonest management—aggregated, it is true, by war overexpansion—but destined in the end to precipitate failure whatsoever the trend of the business cycle. The business reversal of 1920 merely brought to a crisis a failure, postponed by price inflation but, ultimately, inevitable.

By nurturing these permanently unprofitable businesses, the failures of which, in the end, were inevitable, the committees not only wasted capital but they perpetrated, unknowingly, a fraud upon the public. Creditors, investors and customers believed, because of the financial standing of the members of the protecting committee, that there was hope of the ultimate recovery of the business. When the crash finally came, two, three or four years later, not only were there greater losses than if the business had been wound up at the time of the original crisis but all the energy and effort which might have been spent on productive effort was wasted in the attempt to repair on the surface what should have been rebuilt from the foundation. Such a rebuilding from the foundation could have occurred only after a thoroughgoing reorganization accompanied by receivership, the investment of new money by stockholders and an entirely new and able management.

In brief then, the committee reorganizations did not,—except in the few cases where the crisis was attributable primarily to a decline in inventories—penetrate deep enough into the causes of failure or bring about sufficiently revolutionary changes in management to accomplish a permanent rehabilitation of the business.

Difficulty in Dealing with Recalcitrants.—The second objection to the committee treatment of ailing businesses is their difficulty in dealing with "strikers." In order to succeed in their proposed plans of giving the business a rest it was absolutely necessary for all the creditors to agree not to bring legal action for at least a predetermined period. This was the purpose of the creditors' agreement. When there were only a few creditors—practically all of them influential banks—it was a simple and easy matter to receive unanimous consent to the creditors' agreement. But when, as was more often the case in 1921, the creditors were numerous and widely scattered, it was almost certain that at least a few would refuse to sign the agreement. These few would be advised by their counsel that, through attachments which the committee would allow to remain undischarged for the statutory period, they could secure a priority over other creditors. In other words, by refusing to "play" with the other creditors they could obtain, ultimately, the payment of their claims in preference to the creditors who did "play." Moreover, the more general the co-operation of the creditors and the more important it was to secure concerted and unanimous action, the stronger was the position of the "strikers." In the end some private arrangement had to be made with them, as their "nuisance value" might assume alarming proportions. The cost of settlement with them, especially at a time when the small amount of new money at the command of the committee was of great importance, amounted often to far more than the cost of court proceedings. This was conspicuously true, if arrangements could be made whereby a receiver was appointed by the court who had been selected by the principal creditors and with whom there existed an agreement regarding receivers' compensation.

The extent to which these "strikers" went to attain their nefarious ends is often humorous if not pathetic. In one case a teacher in one of our eastern universities had been asked to serve on one of these committees to help salvage a particularly unfortunate concern, the failure of which would have meant total loss to four or five hundred small stockholders. A small amount of money was subscribed as a revolving fund to continue the business. One of the "strikers," a graduate of the same university, after a variety of threats to bring attachments, equity suits, and the like, to force the payment of his claim threatened to bring pressure to bear on the president of the university to have the committee member dismissed if his claim was not paid in full. In another case attachment on a man's home was threatened; in another case, trouble was started against a man in his Masonic Lodge; in another case, the standing of a committee member in local politics was attacked—all to force preferential payment. While most of these threats gain nothing for the "strikers" except an invitation to go ahead, they occupy no small amount of the attention of the committees' attorneys and seriously hamper the difficult and delicate job of rehabilitating the company's credit. In a court receivership nothing like this occurs. So far as the insight of the law permits, all creditors are treated alike—no peace fund is required.

Risk of Blame for All Consequences.—A final reason why creditors' committees will not be used extensively during the next period of business depression has to do with the aftermath of a successful administration. If the reorganization is unsuccessful and the committee is finally forced to surrender their protegé to the courts, they will have done many things which may be interpreted, in the light of subsequent events, as inexpedient. Some action, thought perfectly fair and straightforward, may be given a sinister interpretation by counsel for retaliant creditors. At all events, the committee has assumed authority, overridden precedent and "cut corners" which the serious condition of the ailing business required, but which may not meet the approval of judges and juries when these same expedients are weighed in the light of subsequent failure. At all events, the members of the committees, acting on their own initiative and without the authority of the courts are forced to assume all the blame for the consequences. This is harmful to the reputation of the members as business men, and it may afford the grounds for legal actions by disillusioned creditors.

A creditors' committee was organized in Boston to help rescue from impending ruin a large oil refining company. Boston banks were heavily involved, and members—in some cases the presidents of the banks—became members of the Creditors' Committee. This committee functioned partly independently and partly in an advisory capacity to a receiver appointed by a federal court. Unfortunately the bankers on the committee could not devote the time necessary to understand and interpret the very complicated transactions involved. They delegated the responsibility of working out a plan to others—particularly to attorneys skilled in the niceties of serving two masters. After a plan of reorganization had been nearly consummated the Court discovered that fraud had, apparently, been perpetrated. As a result bankers on the committee, who may have been completely ignorant of the proceedings, found themselves in the unfortunate position of having acquiesced to a plan of action which bore on its surface a legalized fraud against large numbers of the old company's creditors and security holders.

On the other hand, if the committee is successful in rehabilitating the business, they will probably have accomplished their feat by displacing the old management and setting up in its stead a new management of their own selection. Furthermore, as the committee will have little or no money at its disposal it may have paid itself with the common stock of its patient; at all events, it will control the policy of the revitalized corporation even though a majority of the stock is not owned among the creditors. In this situation the old management will feel that it has been dispossessed of its business. It will claim personal damages from the committee for taking its business away. Such claims, when put before a jury, will bear the outward signs of a conspiracy, in which the committees have conspired among themselves to take the business away from the old management. In one notable instance a jury of a Massachusetts Court assessed damages of upwards of ten million dollars against a committee which had rescued and made profitable a thoroughly unprofitable business. It would appear, then, that whether the members of the creditors' committee succeed in rehabilitating the failing business or not they will lay themselves open to criticism and possibly damage suits. This danger responsible business men will not run, when a reorganization may be accomplished more quickly and decisively through the orderly procedure of a court of equity.

BOOK VI

INVESTMENTS

CHAPTER I

THE NATURE OF INVESTMENT INCOME[1]

Narrowing the Definition of Investment.—The utilization of capital is the central theme of both corporation finance and the practical art of investment. Beyond this common ground, the points of approach of the two are from diametrically opposite directions. The corporation is the buyer, the investor the seller of capital; the corporation utilizes what the investor creates. The chief concern of the corporation as the buyer of capital is to pay for its use the minimum of interest rates, and burden itself with the minimum of restrictions; the chief concern of the investor is to force from the corporation the highest interest rates and the severest restrictions. The former would give as little as possible both in money and limitation of its actions, for the privilege of using the investor's capital, while the investor would demand the largest toll and the amplest assurances of the continued security of his fund. This apparent opposition is real. It would result in the paralysis of industrial activity were it not for the great stabilizing influence of the law of supply and demand, which establishes the price that the corporation must pay and the investor receive for the use of capital. The theory of investment is, therefore, merely a study of the principles underlying the application of the laws of demand and supply to the determination of the price of capital.

It has been pointed out many times that investment concerns itself with capital and that capital arises through saving; we know that saving represents merely the margin between production and consumption, both of the individual and of the race. A very considerable amount of the saved capital of society is used by the savers themselves, on their farms, in their businesses, or in private speculations. In a strict sense these savers invest their savings in their own enterprises, yet the final return that accrues to them is an indissoluble mixture of wages, interest on capital and capitalized rent, and a true business profit arising from their administrative skill and acumen. In order to narrow and to simplify our problem the term investment is used in these chapters to mean the placement of individual savings, however arising, in the hands of another party in return for a specific reward. This is expressed as a percentage of the principal. The one party may be a farmer, householder, merchant, or manufacturer; the other may be a person, corporation, or government. The essential element of an investment, as the term is used here, is that it shall represent a particular contract between the owner of capital, who does not care to use it, and the user of capital who sees an opportunity to profit through its use.

---

[1] Certain large sections of the chapters immediately following appeared originally in the Harvard Business Review, Vol. I, No. 3 (April, 1923) to Vol. II, No. 1 (October, 1924).

Each investment, therefore, represents a specific contract between someone who has capital to loan and someone who is willing to pay a premium for its use. Ordinarily the borrower or user is engaged in productive enterprises and hopes to profit by its use. He is therefore willing to share his gain with the lender. It is this agreed-upon share—be it specifically called interest or yield or discount or dividend—that constitutes the individual investment income which we have set out to analyze in this study.

A man owning a bond of a railroad corporation, for which he paid par, $1,000, receives an annual interest payment of $60. We refer to this as the investment income. Similarly, the $45 discount received by a man who purchases for $955 the $1,000 note of a textile mill due in one year, is investment income. So is the $70 dividend on 10 shares of the preferred stock of an industrial corporation. These sums represent the gross incomes on the various types of investment, but there is nothing on the face that explains why one is larger in amount than another or of what elements, if any, this varying gross income consists. Obviously there must be reasons for the variations in gross income of different investments, for, clearly, one principal amount of $1,000 is no more valuable than another.

Nature of Capital Market.—We shall begin our analysis of the gross income on investment capital by calling attention to the nature of what may be called the capital market. This is the mechanism that adjusts the capital supply to the demands of its users. Capital, as already stated, arises through savings, and these savings are either used by the savers or else let out to others at a price above what the savers believe they can themselves earn with them. There is thus, continuously, a capital supply and a capital demand—and a price of capital.

It has been stated, quite often, that the supply of capital is directly influenced by the current price of it as agreed upon between lenders and borrowers, in the sense that the supply of copper or timber is enhanced or decreased by the current price of these commodities. This analogy, however, is not as true on the side of the supply of capital as it is on the side of the demand. We cannot assume that if the current rate of return on invested capital is suddenly increased, the supply will be increased in any definable ratio. The supply of capital that directly affects the interest rate is only that portion of the savings fund which is not used by the savers but is offered in the market to satisfy the effective demand of other users. True, a considerable increase in the current interest rate may enhance the capital supply in two ways—increased stimulus to savings and decreased utilization by the savers themselves; but the absolute result of these two ways may bring about an inconsiderable increase of the quantity of offered capital, or it may bring about an increase so great that it bears no relation to the rise in the interest rate. In other words, the quantity of offered capital is not, as alleged by some writers, a direct function of the price of capital.

The intensity of demand for capital is, on the other hand, more sensitive to changes in interest rates. Changes in rates are more effective in controlling the demand for capital among the users and borrowers than the supply among savers and lenders. This is because the supply of capital, during the brief period during which the sudden change in the demand will exert its influence, is inelastic. Owing to a sudden rise in the price of commodities, users of capital very suddenly, almost overnight, decide to increase their use of capital. They will therefore actively compete against each other for the relatively fixed quantity of free capital immediately available. And, on the other hand, if the users of capital, by reason of a sudden decline in commodity prices or a sudden paralysis of buying, cease to bid against each other for the fixed quantity of free capital then offered, the price will immediately fall. And as a matter of fact a sudden increase or decrease in the demand for capital is immediately noted in a hardening or softening of interest rates; and if the new level of demand is long sustained the effect will extend from call money rates at one extreme to the yields on long-term bonds at the other.

This effective demand for capital, reacting upon the available supply, is the underlying mechanism which determines the fundamental basis of interest rates the world over and at all times. The operation of this mechanism is simple. If into the otherwise stable and quiet market for capital is thrust a new and sudden demand—like the Government bidding for savings with which to conduct a war—and if at the same time there is no additional stimulus for saving, inevitably the new demand will enhance interest rates. But as interest rates rise the effective demand for capital, at the higher level, will be checked and a new point of equilibrium, a new balance, will be established. And the converse of this also is true. A sudden technical discovery in the arts might increase the production of important commodities without increasing the living costs. A sudden increase of the fund of new savings offered for investment would occur. Unless there is a corresponding increase in the use of savings by Government or by private enterprise, interest rates will, inevitably, fall, for it follows as the day the night, that the greater the available capital, the demand remaining constant, the more the price of capital declines. But as interest rates fall, in response to the sudden increase of the supply of capital, men who hesitated to make improvements in their factories, municipalities which hesitated to extend their roads, will be led into making these improvements. These new demands for capital will represent additional elements of competition for the use of available capital and will consequently bid against other agencies for its use. As a result the downward tendency of interest rates will be stayed, and a new equilibrium established.

New Capital and the Interest Rate.—In this discussion it should be remembered that the impulse to save and the resulting quantity of new capital coming into the market is not altogether a direct function of the interest rate. This is a matter of some importance. A considerable amount of saving would always be done irrespective of any interest to be paid or promise of premium, merely because human intelligence recognizes the necessity of providing for days of famine during days of plenty, for the weakness of age during the strength of youth. During early economic periods this kind of saving was alone important, because of the fear of famine, want, and unprotected old age was far more powerful than any hope of gain through the lending of savings. This motive is still a very important one, and its contributions to the capital supply are not affected by the changes in interest rates—except as changes of interest rates affect other factors, such as wages or profits.

As social and political conditions have become more stable through the extension of cheap transportation, the increase of the agencies of production, and the exhaustive division of labor, want and famine have ceased to be social problems—except in a country like Russia. The prospect of want and destitution, however, so far as the individual is concerned has continued, and savings through savings banks, insurance societies and mutual benefit associations are probably unaffected—except in a very small way—by the rise or decline of the interest rate offered the saver.

It is, however, true that in addition to savings for protection a considerable amount of savings comes into existence primarily because of the hope of deriving an income from them. The proportion of saving for this purpose increases with the complexity of the industrial order and the stability of the social order. But of these savings the larger part, in the author's opinion, is immediately used by the saver in his household, on his farm, in his store or his factory. Only the smaller part of this saving is actually saved for the explicit purpose of being offered in the open market. In other words, only a small portion of the savings fund which is consciously saved in order to produce an income will be affected, in quantity, by the prevailing interest rate. That a rise or fall of the interest rate has some effect is indubitable. Some savers will put in electric lights in their houses, or cellars in their barns if interest rates are three or four per cent, but will forego these improvements if the money can be let out at seven or eight per cent. Some merchants will enlarge their stores from their own savings if rates are low but will lend the money to others if the rates are high. We are thus far from denying that the increase or decrease of the prevailing interest rate has any stimulating or retarding influence on the quantity of new capital offered for investment. We are merely denying that one is a direct function of the other, as specifically contended by some economists.

The problem of the effective influence of changes of interest rates upon the quantity of new savings offered for investment turns upon the broad question of the effect of changes of interest rates upon commodity prices, and the influence of these upon the intensity and direction of movement of new savings. If accompanying the fall of interest rates there is a fall of commodity prices—as in the opening stages of a depression—merchants and manufacturers, having no purpose or stimulus to invest in their own business, may actually offer a larger quantity of their savings for general investment than in the previous period of high prices and high interest rates; so that the anomalous condition arises in which the supply of investment capital actually increases at the time of falling interest rates. If, however, the general price decline is marked and precipitous, the same merchants and manufacturers might find that their savings, and more, are absorbed in adjustments of inventories and losses on receivables, so that they have no new capital to offer. And on the other hand, with advancing interest rates and advancing commodity prices merchants and manufacturers might find that all their surplus savings could be profitably employed in their own businesses in spite of the lure of high interest rates. And the capital which they had previously withdrawn from their business and invested outside would now be used internally. As a result rising interest rates would accompany a decreased supply of new capital offered for investment.

Without going into further details it is obvious that the interrelation of the various factors is very complex, and generalizations regarding the effect of changes of interest rates upon the quantity of new capital offered for investment must be accepted guardedly.

Rate of Pure Interest.—The process of adjustment through fluctuations in the interest rate, as above described, and the conditions affecting the supply and demand of capital, are world-wide in their influence and their effects. Were capital absolutely and perfectly mobile, the rate of interest would vary from year to year, or even from day to day, because the adjustment between the supply and the demand of capital would never be fixed and determined. It would be forever fluctuating according to world supply of savings and the world demand of savings. Consequently it is impossible to fix any constant rate of return on capital—no rate that is fair and just, even where little or no risk of loss is involved. During the periods of war when several nations are bidding for capital against each other and against private business, while thousands of workers have ceased to produce, and when industry, except that engaged in producing agencies of destruction, is stagnant, then the price of savings will be high. This is because the supply of new capital is small and the demand large. It has nothing whatever to do with the risk of individual investment. The current rate of return on capital might be double or treble what it had been in previous periods of political and industrial tranquillity; and this would signify nothing beyond an attempt on the part of industrial society to adjust itself to the new conditions, when savings are in extraordinary demand, by stimulating to a slight extent the motive to save, and inhibiting, as far as possible, any but the most urgent demands for capital.

This rate of return on capital as determined by the world supply and world demand for savings will be called hereafter the pure interest rate.[a] Theoretically, were capital perfectly mobile, the pure interest rate would be the same throughout the world at any one time or moment. But capital is not perfectly mobile. It is more easily invested near the locality where it is saved because a certain amount of inertia on the part of the lenders has to be overcome in order to attract savings from the center of origin to a different center of employment, and this inertia, irrespective of the risk involved, must be compensated for by a high rate of pure interest. In thickly populated regions inhabited by thrifty townspeople, savings are apt to increase more rapidly than their employment in industry. Consequently, owing to this inertia, the rate of pure interest will be low. In a newly settled locality, where all improvements are lacking and the thrifty have ample opportunity to invest all their savings in increasing the productiveness of farms and small mills, investment capital saved by the farmers will be lacking and the prevailing interest rates must be high to attract capital from outside.

---

[a] It is merely a theoretical balance, as more fully described above, between the supply and demand of savings in general, without regard to individual investment and individual risk. It varies from year to year, from age to age, according to the balance determined by the volume of available savings and the uses of these savings. It may be very low as it was in the period of 1903 and 1904, after a long-extended time of world peace, and after the introduction of many inventions leading to increased economy in the production and distribution of commodities. It may be very high, as it was in the years immediately following the Great War, when, added to the enormous destruction of capital, there were extraordinary demands throughout the world for the rehabilitation of industry and national life. The pure interest rate moves in broad periodic cycles. Its course is influenced by the industrial cycle but is not necessarily synchronous with it. This relationship will, however, be discussed at length in Chapter III of Book VI.

The primary cause of the difference in interest rates in different localities of the earth is a matter sometimes overlooked. It is quite generally overlooked by American and French investors who often confuse geographical proximity with security. During the years immediately preceding the collapse of the credit and investment standing of the securities of the New York, New Haven and Hartford Railroad, New England trustees were wont to console their beneficiaries who complained of the small return, by pointing out that one could kick his heels against the railroad any time. This naïve observation rested on the implication that because the New Haven Railroad was near at hand, it was a sound and wise investment. The general presumption that somehow investment security varies with the distance from the source of savings, is common, but without foundation. Variation in interest rates in different localities is due primarily to differences in the balance between the ability of the inhabitants to produce more than they use together with the relative effectiveness of the motives of saving in the locality on the one hand, and the local effective demand for capital on the other hand. For if the former is small and the latter large, capital must be attracted into the locality by a relatively high level of interest rate.

There are many and varied influences which impede the easy flow of capital from centers where the supply of capital predominates over the demand to more distant parts where the demand predominates over the supply. Perhaps the first and most important is ignorance. The distant is fraught with unknown contingencies; the saver and investor is above all else timid. In addition, there are a group of costs which increase the charges on capital brought in from afar. A colleague of the author's has likened them to transportation charges. The honesty and ability of the borrowers located in another part of the country or in another political division must be carefully investigated; the laws of the distant place are not understood without some expense. The capital once placed in a distant locality must be continuously watched, usually by paid experts present on the spot. This is illustrated by western farm loan agencies which receive a commission from eastern investors for inspecting farms, placing the loan and collecting the interest. These impediments to the free mobility of capital, and the costs in overcoming them, are quite independent from the risks involved. A loan on an ancient but sterile farm in Plymouth County, Massachusetts, may be no more, nor any less, secure than a loan to an immigrant farmer in Northwestern Saskatchewan. The point is that distance from the primary centers of saving has absolutely nothing to do with the risk of the investment.

Premium for Risk.—Pure interest rate, as the phrase is used, has no reference to specific investments or specific lending contracts. It refers only to a kind of abstract or theoretical capital market where risk, sentiment, and individual judgment have no place. And just because all investments are contracts between particular persons or groups of persons, the lender is forced, in every way, to gauge the risk involved in the individual investment. He must consider the moral fibre and the mental capacity of the person who solicits the use of his capital, and the social value of the enterprise in which it is to be employed; these factors have a very material effect upon the lender's confidence in the ultimate return of his capital. Therefore, in addition to the pure interest representing a riskless price of capital, there must be added a premium to compensate for the individual risk; or, to phrase the same idea differently, to insure the lender against loss. And obviously, too, this premium will vary according to the apparent risk of the individual capital lending contract—the individual investment.

This second element, representing an insurance premium against the loss of the individual investment, is simply illustrated by the elementary principles of probability. If one should place nine white balls and one black ball in a bag, and draw forth a single ball, provided the operation is repeated a large number of times, the black ball will be drawn 10 per cent of the times and a white ball 90 per cent. Stating the matter differently, it is evident that if one man should penalize another the sum of ten dollars for every time the latter drew the black ball, but paid him one dollar at the time of each draw, the two would be even in the long run. In its broadest significance this merely implies that if the chance of occurrence of an event resulting in loss—death, fire, or accident—were certainly known (as the chance of drawing the black ball is certainly known), then the misfortune could be exactly counterbalanced by setting aside regularly a percentage of the loss represented by its known chance. This is the fundamental principle of insurance; it is also, one may add, the theoretical basis upon which risk in investment can be estimated. For if loss of principal through failure of the borrower to repay—an ever-present condition in every individual investment contract—were calculable on a percentage basis, one would merely have to add this percentage to the pure interest rate to obtain a gross income from his investment which would not only include the fundamental pure interest but also a sufficient premium to compensate, in the aggregate, for any loss of principal. The pure interest rate would be increased or "loaded" by an amount that would, when the aggregate premium on all a man's investment income is considered, exactly replace the losses in principal which he would sustain on some of his investments.[b] The absolute net return would be exactly the pure interest.

This exposition may be made clearer by a single concrete example. Suppose, for the moment, that the current rate of pure interest is 4 per cent. In this case money would be lent without reference to taxes, or risk or sentiment, for 4 per cent. Now suppose that an investor is certain that in a given industry exactly one enterprise in every fifty fails during each and every year. Nevertheless, he is willing to lend money to various corporations engaged in the industry—fully conscious of the fact that the investment in one out of every fifty will prove a total loss. But obviously, he will demand a higher interest rate than if he is lending capital to an industry in which there is only one failure out of every hundred, or one out of every thousand. In other words, he will require higher interest return, the greater the probability of loss of principal. And, moreover, in the case just described, he will require that the addition or increment of income above pure interest obtained from all loans in the industry shall compensate him at least for the loss of principal in the case of the one unfortunate investment out of the fifty. That is, if he makes a loan of $1,000 to fifty different corporations engaged in the industry, the investor will demand, in addition to the 4 per cent of pure interest, an amount which, in the aggregate, shall exactly compensate for the loss of one of the fifty loans, namely $1,000. And assuming that the interest is paid in advance, and neglecting the compounding of interest, this premium will amount exactly to 2 per cent. This is the payment for risk—the premium or insurance against the loss of principal. It indicates, in the present illustration, that of the 6 per centum gross income received by the lender on loans to these fifty corporations 4 per centum represents pure interest in the sense of the price for lending riskless capital, and 2 per centum represents the insurance premium levied on all the loans to compensate for the probable losses on some. In other words, gross interest as we know it in business and investments consists of at least two components, pure interest and compensation for risk.

---

[b] In all this discussion it is assumed for the purpose of simplicity, that we are dealing with the loss of principal only, not the interest on the unfortunate investment as well. This is merely presuming that interest is paid in advance. If the danger of loss of interest is considered in addition to loss of principal, the insurance premium should be slightly larger to offset this slightly greater risk.

Other illustrations may be added without limit. The significant part of this analysis, however, is very simple. Every investor, consciously or unconsciously, weighs the relative chance of loss of principal attendant upon every prospective investment. And every investment, in its yield, as evidenced by its current market price, carries a certain risk premium, over and above pure interest, which is the investment market's appraisal of its chance of loss. Supposing—which certainly is not true—that this premium above pure interest carried by all investments represents accurately the true chance of loss of every one of the investments offered to the investor, and supposing, too, the fund to be invested is large enough to include a large number of single investments, then under these conditions the net return to the investor would be exactly the pure interest. The excess of risk premium above pure interest would exactly offset the losses of principal. There would be no enhancement of principal, no loss of principal.

Business Profit or Loss on Investment.—Certain presumptions have been made in this discussion, in order to lay bare the theory without undue limitations. But it is obvious that no investor can determine accurately the absolute value of the risk of a prospective investment in the same manner that the life insurance actuary can compute the death rate per thousand of population, or even the fire insurance expert can schedule or "rate" his various hazards. The judgment of the investor must be, of necessity, little more than an intelligent guess. Sometimes, by reason of the fact that the great majority of investors overestimate the risk of an investment, the premium above pure interest demanded by the investors and paid by the borrowers will be greater than it actually is. Consequently, if investments of this character are bought consistently by an investor, he will receive a kind of supplemental premium —a kind of straight profit—due to his judgment or business ability in picking those investments which carry a premium larger than the absolute value of the risk. In brief, such an investor would receive a total gross investment return greater than both pure interest and the actual risk-premium, because of his skill in picking investments which carry a greater premium than their risk requires. Conversely, certain investments, because of sentiment, age or the laws, carry a premium less than their inherent risk involves. The investor is not compensated adequately for the probability of loss. And if such investments are acquired consistently the loss of principal will not only absorb the risk-premium but some of the pure interest as well. It is obvious, therefore, that the sum of the pure interest and risk premium, in any individual instance, is either increased or decreased by an increment representing a straight business profit or loss varying with the skill or lack of skill of the investor in the selection of his investment. Experience has shown—as even an elementary analysis at the time could have shown—that if an investor had consistently acquired New England railroad stocks during the first decade of the century, he would have certainly sustained losses of principal; had he acquired electric central station stocks his fund would have shown an increase of principal. This is merely another way of saying that the investment in New England railroad stocks involved, consistently, a negative business profit; whereas the investment in the stocks of the rapidly expanding electric industry involved, consistently, a positive business profit.

These three factors or elements, then, constitute the gross return of an investment. There is the pure interest on the capital, representing a kind of absolute market determined by a balance between what the savers as a class can get, and what the users as a class can afford to pay for the use of capital.

But as all investment involves a special contract between saver and user, as loss of the individual investment is an ever-present possibility, the fundamental pure interest rate must be increased by a premium to counterbalance and equalize the individual investment losses. And, finally, as the specific value of the probability of loss in any one case cannot be determined accurately the actual premium for risk cannot, in any given case, be more than an intelligent guess. Therefore, there is a kind of business profit, analogous to all other business profits, which accrues to the able investor who secures an investment having a risk premium greater than the actual risk turns out to be, or a business loss to the man of inferior judgment who buys an investment having a gross return in which the risk premium does not fully compensate for the actual risk.[c]

This analysis of investment return has its analogy in insurance. It is known by all actuaries and statisticians that the insurance of certain classes of insurable lives and properties is consistently profitable to the company. In other words the premium charged is greater than the hazards warrant. In the long run business of this kind yields the insurance company a true business profit, a true return on the business ability of the insurance company in selecting an unusually desirable class of business. And conversely, it is also known and acknowledged that certain other classes of hazards yield an inadequate return to the company; as a class the premiums collected on them do not compensate for the losses. Obviously the insurance company is called upon to exercise true business ability in seeking out the former class of hazards and avoiding the latter. A life insurance company seeks to insure men of moderate means engaged in protected sedentary occupations, and it avoids men over six feet, three inches tall, otherwise physically sound; a fire insurance company may seek suburban middle

---

[c] This analysis may be represented by a very simple notation. If g represents the gross return on any investment, p the pure interest rate then prevailing, r the compensation for risk, and e the profit or loss due to individual business judgment, then

$$g = p + r \pm e$$

class residential houses and avoid farm building hazards of any description. In the selection of the type of business that it regards as most profitable the insurance company will be governed by its own experience, rather than by the widely known expectation of life tables or the commonly accepted schedule ratings. This preference merely means that, in the exercise of business judgment, one class of hazards carries a risk premium greater than the actual risk requires, and therefore the insurance company is overpaid and the business yields a positive business profit—while in the other case the hazards carry a risk premium less than the actual risk requires, and therefore the insurance company is underpaid and the business yields a negative business profit. In other words, scientific as the insurance companies believe their computation of class hazards to be, they recognize that true business ability may be exercised and a kind of special or extra business profit obtained by directing their efforts toward certain kinds of hazards and avoiding other kinds.

Formula

$A = P + R \pm \ell$

[illegible]

CHAPTER II

THEORY OF ECONOMIC PROFITS APPLIED TO INVESTMENTS

Economic Business Profits.—A corollary to the problem of the analysis of the nature of return on investment securities is the allied problem of the application of the theory of economic profits to the specific problem of practical investment. Or, stated differently, we are confronted with the question whether or not the exercise of business foresight in the selection of investments yields a surplus or margin of excess return which is in any way analogous to the profits realized by the ordinary business man in assuming the risks and otherwise administering a successful business. This question is not easy to answer because it entails an understanding of the economic justification of the reward ordinarily vouchsafed to administrative ability.

Since the days of Adam Smith, and even before, the importance of human judgment or foresight has been recognized as a necessary element in all economic production, but this acknowledgment has always been with reservations. So interested has a certain type of economist been in a theory of rent and another type in a theory of wages that anything like a consistent explanation or broad understanding of the importance of business foresight to industry has been overlooked. That the natural resources of the earth, the labor of man and the tools of industry must somehow be coordinated is tacitly acknowledged, as also is the simple fact that the risks inherent in industry, from the raw materials of production to the ultimate distribution of the finished goods, must be carried by someone. But a recognition of the comprehensive character of this supervising and risk-carrying necessity has been only grudgingly acknowledged. Consequently, the theory of business profits, confronting squarely the facts of an actual business world, has been and still is the weakest strand in the philosophy of neo-classical economic theory.

There must be foresight, guidance, or control in every business enterprise; someone must buy raw materials and pay labor its daily or its weekly wage, whether the goods manufactured sell for more or less than the expenditures involved in their cost. The business manager is no less significant than the laborer and his wages or the capitalist and his interest; and the business must yield a sufficient profit to reward the manager for his planning and the risks he takes in paying his various contractual obligations before his goods are sold. Someone has to manage business of every description, and with that management go, of necessity and by reason of the responsibilities of management, the risks of loss or gain. This is why the economist, fully conscious of the vicissitudes of the business world, speaks of positive business profits and negative business profits —the former, the reward for successful management and risks wisely taken with perspicuity; the latter, the losses of stupid management and risks foolishly taken without adequate knowledge or insight. The positive-profit manager safeguards the labor and the capital entrusted to his care, as well as makes a profit for himself, whereas the negative-profit manager dissipates the capital under his control and soon reverts to the ranks of labor or becomes an economic parasite.

The application of this simple theory of business profits to all forms of economic enterprise is now so thoroughly recognized that, in spite of the apparent failure of classical economic theory to recognize the full significance of the rôle of the business manager, its elaboration at the present juncture is not necessary for the main purpose of this study. This main purpose is to show that the general theory of business profits is applicable to investment; and further that the investment of funds is a real business, subject to the rewards of true business foresight and the losses incident to attempts on the part of the poor business manager to invest funds. This is not self-evident. The school teacher, clergyman, lawyer, dry goods merchant, and shoe manufacturer know enough about their own respective businesses to feel assured that the ordinary uninitiated could not succeed without long and specialized training. Yet these same men stand ready to embark on one of the most intricate of businesses—that of investment—requiring perhaps the most extensive and far-reaching specialized knowledge of any profession or business. To compare intelligently, and with a degree of insight which makes the comparison something more than a guess, the credit obligations of Sao Paulo and the mortgage bonds of the Chicago and Northwestern Railroad, the debentures of the Detroit Edison Company and the common stock of the General Electric Company requires acumen and a breadth of knowledge compared with which the ordinary professional and business judgments are child's play. And yet it is just such specialized knowledge and acumen which constitutes the business of investment, a business which many, without training or aptitude, feel qualified to embark upon with their own savings and those of their relatives and friends.

Three Elements in Investment Return.—The significance of business profits, in the somewhat technical sense in which the expression is used here, has been suggested in the previous chapter. At that time it was pointed out that the return on any investment, sound or speculative, paying little or much, consisted of three essentially different elements. There is a certain component part represented by the pure interest, the riskless price of capital. This is much the same in all civilized countries at any one time, varying within narrow limits from about 3 to 5 per cent. There is also an amount represented by the current market's estimate of the risk of loss involved in the particular investment, an insurance premium to compensate for the possible loss of principal or interest. This varies according to the nature of the investment, from an almost negligibly small fraction of 1 per cent in high-grade government and municipal bonds, to 10 per cent or 20 per cent and more in speculative mining shares. And there is, finally, a certain increment or profit which accrues to the investor who acquires an investment carrying with it a higher premium than the actual or mathematical value of the particular risk requires. This third element represents the reward of business or managerial skill in the selection of an investment whose intrinsic merit is greater than the market estimate; or, to phrase it differently, the real risk is less than what the market price gauges it to be. This reward may be negative. It is negative in those investments in which the compensation for risk is less than the inherent risks—low interest-bearing bonds sold on the past reputation of the issuing corporation or municipal bonds selected solely because of their tax-exempt feature. Whether positive or negative it constitutes a true business profit, analogous in all respects to the business profit belonging essentially to any economic activity.[a]

An example will make this analysis clear. A bond due many years hence is, at the moment, selling so as to net the investor 5.37 per cent. Let us assume that the pure interest rate is approximately 4.5 per cent—that is, capital would lend without risk and without any adjustments for taxes, at 4½ per cent. Furthermore, let us assume that the chance or probability that this particular bond will become valueless during the

---

[a] The analysis of the income yield described in this paragraph has been illustrated by the following formula:

$$g = p + r \pm e$$

when g represents the gross return on any investment, p the pure interest rate then prevailing, r the compensation for risk, and e the profit (+) or loss (—) due to individual business judgment. The r would always be positive in the case of bonds or fixed income investments, because there is never a "chance" or condition whereby the investor might anticipate an increased return. On the other hand, in the purchase of common stocks, the chance of loss of principal and income, $+r$, is always balanced off by the possibility, at least, of gain of principal and income, $-r$. Under normal circumstances, the chance of loss will, in the investor's mind exceed the chance of gain so the resultant of $(+r)$ and $(-r)$ would be positive. On the other hand, it often happens that the expectation of sudden increased yield, or stock dividends or other melon-cutting activities so affects the investor's estimate of the future yield of the stock that the chance of increase $(-r)$ so far exceeds the inherent risk that the resultant of the two becomes negative. In such a case $-r$ should obviously be substituted for $+r$ in the above formula.

next year is one chance in two hundred. The investor will require, therefore, an insurance premium of one-half of 1 per cent. Under these conditions he will be entitled to receive exactly 5 per cent return on his investment—4½ per cent for pure interest and one-half of 1 per cent for risk premium. In reality, however, he receives more than this, namely, 5.37 per cent; so that he gets a small amount of income which, were all investment made with omniscience and a perfect knowledge of present and future conditions, he would not be entitled to, nor would the economic order of society permit him to have it. But no investor is endowed with any such perfect knowledge. He is always and incessantly making judgments of the relative risk involved in different investments; the very act of decision in making an investment involves this kind of judgment. And the only test of the accuracy of these judgments is the outcome —the actual experience of the investor. In the illustration just cited he has chosen an investment which should, in terms of its absolute risk, yield him only 5 per cent, yet because of ignorance on the part of the rank and file of investors and the widespread failure to appreciate the fundamental soundness of this particular investment, its market price is such that the yield is 5.37 per cent. He exercised real business skill in purchasing this particular investment in preference to others, and the increment or profit of .37 per cent is a true business profit accruing to him because of his skill and discriminating foresight in picking an investment which carried with it a margin above pure interest in excess of its absolute risk.

Profits in

There is also the possibility of negative business profits. At the same time that the bond described in the foregoing paragraph was selling on a 5.37 per cent basis, another bond was selling on a 4.78 per cent basis. Now it happened that this latter was known to all bankers and possible investors; the corporation of which it was an obligation had had a superior credit standing for many years. It was a "legal investment" for New York and New England savings banks; it was readily salable on several exchanges; yet on careful analysis of all the factors that determine bond security it is quite evident, we will assume, that the chance of loss of principal was, as in the foregoing case, one in two hundred for the ensuing year. That being the case, the yield should have been, again as in the foregoing case, 5 per cent. But the investor who selected this bond, instead of obtaining a positive business profit, would endure a loss of .22 per cent, the difference between the 5 per cent return to which pure interest and the absolute value of the risk would entitle him and 4.78 per cent, the actual yield at the prevailing market price. This would represent a true loss—negative business profits—the penalty for failure to use discrimination and foresight and business acumen in picking his investment.

"Good" and "Bad" Investments.—In the light of this analysis the problem of investment, considered as a business, narrows itself down to the selection of those investments which carry positive business profits. In other words, investment is a business like any other economic activity. Like a corner grocery store or a steel mill, it is subject to good and to bad management. If a fund is invested with skill—a true business profit will result, like that arising from the successful management of the grocery or the mill. If this is not withdrawn it will represent regular accretions to the fund, just as the profits of any business undertaking, not drawn out, add to its capital. And if the fund is invested with poor or negative business ability, there will be a steady diminution of the fund, just as a grocery store or mill, badly managed, may continue to exist by constantly eating into its own capital.

Aside from forecasting the fluctuations in pure interest rates, which affect simultaneously the yield on all investments, probably by an approximately uniform variant, the business of investment is the selection of those individual investments carrying positive business profits. Described thus briefly this analysis provides us with a clear-cut definition of a good investment. This expression, as used ordinarily, is synonymous with sound investment. A good investment is said to be one with only a slight chance of loss of principal—a state or municipal bond, a closed first-mortgage railroad bond eligible for Massachusetts savings banks. Yet if the analysis in this discussion is correct, a good investment should mean something quite different. It should mean an investment entailing a positive business profit. Of the thousands and tens of thousands of possible investments open at any one time, some are selling to yield more than pure interest and the absolute value of their risk—like the bond selling on a 5.37 per cent basis cited earlier. The purchase of such a security yields a positive business profit. It is, therefore, a good investment. In the long run the continued selection of such investments—when there is a positive business profit, whether the money yield is 5 per cent, 6 per cent, 10 per cent, or 20 per cent—will yield to the beneficiary a return greater than pure interest, after adjustments for losses. And this analysis may apply to the high interest-paying mining stocks as well as to low yield bonds of high repute. For example, the stock of a certain Canadian silver mine may be purchased at a price to yield the investor 26 per cent. Although the silver is being rapidly removed and the reserves are relatively low, such an investment may be good in the sense used here. If pure interest is estimated at 4.5 per cent, the aggregate risk premium and the profit or loss is 21.5 per cent. In other words, an investor in such a security assumes that there is approximately one chance in five that the investment will be a total loss during the year; or to phrase it differently, he assumes that the fund will become a total loss in about five years. If experience shows that the stock continues to pay its dividends beyond five years, everything received thereafter will be a real business profit. If it becomes a loss in ten years, then the real risk premium should have been 10 per cent instead of 21.5 per cent, and the difference each year between 14.5 per cent, pure interest and the absolute risk premium, and 26 per cent, the yield actually received, or 11.5

per cent, is a true positive business profit. In such a case the mining stock is a very good investment.

Conversely, a bad investment is not necessarily a speculative or risky one; it is merely one in which the investor obtains a negative business profit. An example is a municipal bond which yields only 4.15 per cent. There is some slight risk—municipal bonds have "gone bad" in the past and will in the future—but owing to the tax-exempt features and that glamour of respectability about a municipal bond, the demand exceeds the supply, and the investor does not get even pure interest, much less any compensation for risk. Even though the risk is regarded as zero, which is not true, the investor gets a negative business profit. Under any strict definition it is a poor investment.

If this analysis is true, the terms good and bad applied to investments do not connote the relative soundness or riskiness. A good investment may have a slight risk or a great risk; a bad investment may likewise entail little risk or much risk. It is merely a question of whether the yield is greater or less than an adequate premium over and above pure interest. It is a question of actual experience deducible from large averages.

Distinction between Investment as a Science and an Art.—The terms good and bad as used in this connection do not imply that all good investments are appropriate under all circumstances. Investment is an art as well as a science, and the selection of the proper and appropriate kind of investment suitable for persons of different temperaments, different economic circumstances and different intellectual and moral backgrounds, is a part of what one might call the art of investment in contradistinction to the science of investment. No one with the least human perspective would countenance the placing of the insurance money of the proverbial widow in the shares of a well-managed mining corporation, even though the principles heretofore described entitled it to be called a good, even very good, investment. This is because investment to the widow is not merely a business, to be subjected to rigid forms of analysis, but an element, an important element, of what is to her the art of living.

There is this limitation, therefore, to be considered in making single investments. In all small funds the marginal utility of the principal to the individual investor is the dominating consideration. To the widow with a life insurance of $2,000 as her only reserve, the value of each dollar of her meagre fund of capital is to her so great that even the small possibility of loss, as weighed against the large possibility of gain, would or should deter the widow from taking the chance. Especially is this true when the fund represents the total savings of an aged dependent. Under such circumstances the marginal utility of each single investment—of necessity proportionately large because the units in the distribution are a hundred or a thousand dollars—is exceedingly great to the dependent. This simple judgment is based on a consideration of the value to her of each unit of her capital rather than on the objective principle of the intelligent application of the law of averages. Just as life insurance—the premium of which is always weighted by at least the loading in favor of the company and against the policyholder—may be a very wise and expedient expenditure to the thriftless young husband, even though life insurance can never under any circumstances be considered as a good investment when considered in the light of mathematical averages. This distinction is important, and the principles underlying the business of investment do not in the least minimize the significance of the human aspects of investment. Quite apart from a science, it is an art with a human background. And in the application of the principles of sound investment to the varying conditions of human life there is often quite as much of the appreciation that goes with art as there is the judgment that goes with science.

Distribution of Investment Risk.—The application of this theory is dependent obviously on the control over funds of such size that individual losses may be compensated for by the aggregate premium reserves. This requires a considerable distribution among different industries and different issues of securities because the individual units of investment, such as thousand-dollar bonds and hundred-dollar shares of stock, are of considerable size. Thus, for example, it is estimated that the absolute probability of loss of a certain type of investment is one in one hundred per year. Each member of the group would therefore carry a premium of 1 per cent over and above pure interest. But if the fund included only 50 single unit investments, and the loss happened to fall within this group of 50, then the aggregate of all the risk premiums of the group would compensate for only a half of the losses. On the other hand, if, instead of carrying 50 such units, the fund included 500 units, each a tenth of the size, the losses to the group would approximate 5 units and the aggregate risk premiums would quite nearly if not fully compensate for the losses. This is the economic justification for investment distribution. It is a practical means for creating something approximating a balance between the certain losses and the aggregate of risk premiums. Some such balance has to be created before the profits or the losses due to the exercise of business ability show themselves. It is the old story, long exemplified in all kinds of insurance, that the totality of chances must be of sufficient size so that the so-called law of averages, the strict mathematics of probability, takes the place of mere chance.

This is all the value there is to the principle of distribution which is often heralded as the fundamental principle of all sound investments—unless the investor intends to obtain a balance between invested funds and prices so that he can take advantage of an upward swing of general prices.[b] The Englishman who thinks he has safety and general excellence of investment by placing a portion of his fund in the shares of an Argentine railroad of which he knows nothing, part in the bonds of an Australian traction recommended by a broker clerk, part in the debentures of an American industrial known to him only by name, would probably do better to put the entire fund in a British security of which he knows at least something. It is difficult to see how a fund placed in 10 poor securities is any better or any safer than if placed in a single poor investment.

---

[b] The whole theory of the distribution of investments has also this aspect. Were it possible to divide a fund into a vast number of separate units and place these units in every industry of the country and in proportion to the industry's contribution to national wealth, then the fund would increase or decrease in proportion to the increase or decrease of national wealth. Or, phrased differently, the wider the distribution of the individual units of an investment fund, the more nearly will the fund rise or fall with general prosperity. It becomes, in truth, an index of our economic life. Moreover, the wider the distribution, the more certain it is that the

Choosing Between Industries for Investment.—The specific purpose of this discussion, however, is the further analysis of investment business ability—the "*e*" in the formula we have used above. This consists in placing capital in the industries where it is most needed—a fact evidenced by the largeness of return of the invested capital as a whole in proportion to safety—and in the securities of those industries where the market price overestimates the risk. Specific conclusions of fact in these questions would obviously involve a treatise on the theory of investment, not even an introduction to which is within the scope of this chapter. Yet there are certain observations, illustrations as it were, which may indicate certain lines of discrimination among investments.

Relative Extent of Knowledge of Investments.—As an illustration, we may consider the influence of wide knowledge concerning securities upon business judgment in the selection of investments. It is obvious as a very simple initial premise that wide knowledge concerning a security tends to increase the number of possible investors who can or think they can appraise its true value. From this it would appear to follow that the yield, at market price, of a widely known security more nearly approximates its absolute value—pure interest plus true compensation for risk—than that of a less well-known secur-

---

fund, as a whole, will not be extinguished for it is inconceivable that our economic life should be extinguished without the extinction of the race.

ity. In other words, the opportunities for the exercise of marked business ability in the selection of investments are less in widely known than in little known securities. Further, it might seem to follow that the probable error in the estimates of the risk of a widely known security would be quite as apt to be positive as negative. That is, the zone of error in the estimation of risk among widely known securities besides being narrow would be quite as wide above as below the line; or to phrase it differently, the average investor would over-estimate quite as much as he would under-estimate the absolute value of the risk of a widely known security. This, however, is not true. The human mind welcomes the familiar. It is prejudiced in favor of that which it knows about and against that of which it is ignorant. The intensity of its favoritism for the familiar varies with the extent of familiarity. Consequently the investor will be more apt to under-estimate the risks inherent in familiar securities, or securities posted or advertised by some artificial or general means of stamping familiarity upon them.[c]

The best example of such an artificially posted group of securities made widely familiar by such a means, is the list of legal investments for savings banks. Added to this prejudice in favor of the familiar, as compared with the unfamiliar security, is the operation of the old law of demand and supply. Savings bank and other "high-grade" securities are in limited supply. But the demand covers a wide range, especially from the savings banks themselves, which are forced to confine their security purchases to this artificially posted group. Whatever

---

[c] This observation, however, should not be interpreted to mean that small, probably little-known issues—in spite of their probably higher risk premium—are necessarily the best investment. In the exhaustive study of industrial preferred stocks, recently completed,[1] it was found that the percentage of those issues which had declined to less than one-quarter of their issue price was greater for the small issues than for the large ones. It is also true that small real estate bond issues show, probably, greater losses than other bond issues although the income yield on them is not appreciably greater.

---

[1] Chapter III, page 1199.

else may be said concerning general investment values of different groups of securities, the writer is convinced that no group as a whole commands a market price which so consistently under-estimates the inherent risks. Nor from the point of view of the exercise of business judgment, is there any group which, as a whole, affords such consistently poor investments as the so-called "legals" for New York and New England savings banks.[d]

Comparison of "Legals" with Other Classes.—Studies have been made, from time to time, for the purpose of comparing statistically savings bank "legals" with other classes of securities. The difficulty is always to establish a sound basis of comparison which shall be from every angle fair to all the classes considered. Several years ago a student made a comparison of changes in principal value of 10 carefully selected (a) municipal, (b) savings bank "legal" railway, (c) "medium" non-legal railway, (d) poor railway, and (e) industrial bonds, from 1903 to 1913. He found that the greatest aggregate loss was in municipal and the greatest gain of principal in industrial bonds. This study was not exhaustive and the results were not of comparative value.

A few years later similar studies were undertaken using greater refinements of statistical method and a wider selection of individual securities.[3] One investigation showed that during a period of years speculative bonds gave a higher total yield than savings bank bonds by 26 per cent and medium grade

---

[d] The ease with which any investment may be made is a factor that reduces the opportunity of true business profit. Stock offered to consumers by public utilities probably yields a lower return than if the same stock with the same risk were personally chosen by the investor from securities offered on the open market.[2] Unprotected bonds—"orphan bonds," as they are called—invariably yield a higher return than bonds involving the same risk offered by bond salesmen. The investor is rewarded with a true business profit for "digging up" less well-known investments.

---

[2] See Book IV, Chapter X.

[3] Mansfield, F. W., Jr., Investment in Savings Bank, High Grade and Speculative Bonds. Bergstresser, H. F., Jones, J. B., A Comparison of the Yields of High, Medium and Low Grade Bonds. Bowden, B. A., Comparative Study in Yields of Two Groups of Railroad Bonds. All Harvard Graduate School of Business Administration (1923).

bonds by 10 per cent.[e] Another investigation of the same general type showed 83 per cent advantage for the highly speculative 35 per cent for the medium-grade bonds over the bonds legal for Massachusetts savings banks.[f] Still a third study,

---

[e] Mansfield[4] sought to determine the relative investment merit of three groups: (a) bonds legal for Massachusetts savings banks, (b) high- or medium-grade bonds not eligible for savings banks' investment, and (c) speculative bonds. He assumed that on January 1, 1901, the sum of $100,000 was invested in a random but nevertheless widely distributed group of 50 bonds of each of the three classes. During the intervening twenty-two years the interest receipts were added to each fund, the losses through failure and reorganization subtracted, and the bonds sold January 1, 1923. Bond prices were on this date relatively high as compared with the preceding few years, but the speculative bonds were still feeling the effect of the depression. Nevertheless the savings bank bonds only accumulated a fund of $195,000. There was only one case of defaulted interest and this default was subsequently made good. There was no appreciable capital loss except for the small dropping in price, noticeable in all three classes, characteristic of the rising interest rate. The second class of bonds, in turn, showed two cases of defaulted interest, one instance of nearly total loss, and two instances of large capital losses. The fund accumulated was $214,000. The third or speculative group of bonds showed eleven cases (out of 50) of defaulted interest, five cases of large capital losses, and five cases of nearly total loss of capital. Notwithstanding these losses, the large interest returns resulted in a fund of $246,000. In other words, considering the value of the savings bank funds (interest accumulations and current principal value) as 100, the high to medium grade had a value of 110, and the speculative bonds a value of 126.

[f] Bergstresser and Jones[5] chose 100 bonds representative of three classes: (a) legals for Massachusetts and New York, (b) medium-grade bonds (not legal in 1900 but yielding up to 5 per cent), and (c) low-grade bonds yielding more than 5 per cent in 1900. These 300 bonds, a random selection of each class, were conceded to have been bought October 1, 1900, and held—except for total losses or maturities, and in the latter case reasonable substitutions were made—until October 1, 1922. Such a period covers roughly four industrial cycles and the starting and ending dates represented, in their opinion, approximately analogous points on different cycles. Two computations were made—(1) bonds on an amortized basis, as of October 1, 1922, (2) bonds sold as of October 1, 1922, and capital losses and gains included in income. The average yield of the three groups according to the two computations is as follows:

1. Amortized Values.	Average Annual Yield	Ratio
Legals	3.46%	100
Medium	4.64%	134
Speculative	5.77%	166

2. Bonds Sold October 1, 1922, and Losses Taken.	Principal Losses During Period
Legals	0.
Medium	+$ 37.
Speculative	− 4,112.88

---

[4] *Op. cit.*

[5] *Op. cit.*

limited to railroad bonds, showed, in this clearly defined group, the non-legal bonds to have an advantage of 36 per cent over the railroad bonds legal for savings.[g] This general result is also indicated by Van Strum.[7]

A similar type of study, confined to common stocks, showed a much greater advantage in the random purchase of speculative over so-called conservative common stocks.[8] In this case, however, the number of units was too small to give the results much scientific value.[h] And further, the comparative value of so-called speculative and non-speculative securities is so tied up

---

Losses on Sale	Total Losses	Average Annual Yield	Ratio
$10,226.66	$10,226.66	3.03%	100
14,925.56	14,878.56	3.99%	135
5,351.30	9,464.18	5.50%	183

[g] Bowden[6] made a comparison of savings bank legal railroad bonds with other non-legal high-grade railroad bonds. A study was made, throughout a long period from 1892 to 1922 of the purchases of railroad bonds (Massachusetts legals) of two long-established, ostensibly well-managed Boston savings banks—The Provident Institution for Savings for the Town of Boston, and the Suffolk Savings Bank for Seamen and Others. The total railroad bonds of these two large Boston savings banks, purchased between 1892 and 1902, were, as of 1902, compared with the average of 87 high- to middle-grade railroad bonds yielding between 4¾ per cent and 5¼ per cent as of January 1, 1902. The accumulation of interest, with principal gains and losses, of both groups was computed as of January 1, 1922, with the following results:

Railroad Bonds	Average Maturity	Initial Fund (Market)	Par
Savings	1928	$105,020	$100,000
Medium	1933	101,975	100,000

Apparent depreciation of principal	Total accumulations—interest and capital losses corrected to $100,000 initial investment	Ratios Corrected	Annual Interest Rate
30.4%	$182,275	100	3.17%
17.7%	246,743	136	4.62%

It is interesting to compare these ratios with those of Mansfield and Bergstresser and Jones, as given in the preceding paragraphs. The investigations were entirely independent; different lists of bonds were used and somewhat different statistical methods followed.

---

[6] *Op. cit.*

[7] Van Strum, K., Investing in Purchasing Power, 1925. Cited at length in last chapter.

[8] Roberts, S. R., Comparison of Long Term Investments in Conservative and Speculative Common Stocks, Harvard Graduate School of Business Administration (1926).

with the changes in the underlying economic conditions that any discussion should be postponed until later.

Preference for Tax-Exempt Issues.—As an illustration of the possibility of a true business provided by reason of group selection, the choice between taxable and non-taxable securities is suggestive. A recent investigation was made covering a large group of both taxable and non-taxable high grade investment securities divided roughly among the railroad, public utilities, and industrial issues.[9] It was found that, as a whole, the investor received approximately one half of one percentum less from tax-exempt issues than from taxable issues of the same relative security—that is, having essentially the same risk premium as indicated by losses of principal where distributed over large groups.[i] This is the same as saying that the premium on taxable security yields, above pure interest, is a half of a per cent greater than the entire group requires or that the yields on tax-exempt securities are insufficient by a half of one per cent, to adequately balance the risk. But, whichever phraseology is correct, it is obvious that tax-exempt securities are, as a class, a poorer investment than taxable securities.

---

[h] Ten common stocks having, prior to 1901, a stable dividend record for at least six years were chosen from the New York Stock Exchange listed common stocks. These were called conservatives. Ten other listed stocks, that paid no dividend in the preceding years, were called speculative. The values were again taken in 1920. Although the speculative group contained 1 stock of a company which later failed, the appreciation of 7 out of the 10 gave a total appreciation to the group as a whole which very much exceeded that of the conservative group—notwithstanding the fact that no company, whose stock was included, failed. Although each group included a wide diversification, both as to industry and locality, the groups were so small that the results cannot be regarded as conclusive.

[i] Additional Average Annual Costs of Securities Caused by Existence of Tax-Exempt Features.

(Using Only Securities Issued Since 1915)
Unit: % Yield on Capital Invested

All taxable securities	0.55%
All rail securities	0.73%
All utilities securities	1.11%
All industrial securities	0.08%

This means that, in general, a taxable security yielding 6.55 per cent

---

[9] Baehr, W. B., Effect of Tax-Exemption on the Value of Securities, Harvard Graduate School of Business Administration (1926).

Average Yield on Industrial Issues.—It is of interest to apply the principles described here to very large groups of securities with the purpose of ascertaining relative profits or losses where the law of averages can have a wide scope. A number of such investigations are under way, two of which, however, illustrate the method. In one, Friedlander [10] compared the issue price and yield of 853 separate industrial bond issues brought out between January 1, 1914, to January 1, 1924, in order to compute the net yield after allowing for defaults. The gross yield of the group was 7.02 per cent, which would have to be corrected for losses from defaulted issues of 1.2 per cent and near defaulted issues of .01 per cent giving a net yield of 5.81 per cent. If pure interest rates during the period are regarded as 4.51 per cent, it would appear that the investor in industrial bonds received a gross premium of 2.52 per cent, whereas the net losses through default required a premium of only 1.21 per cent. Hence the investor in this type of security obtained a true business profit of 1.31 per cent per year.[j]

---

per year should have been equally acceptable to the investing public, if tax-exempt, at an average annual yield of 0.55 per cent less, or at 6.00 per cent. What is the loss to the investor, by reason of the tax exemption, is the gain to the issuing corporation. If it were the security of a railroad, the fact that it was taxable added 0.73 per cent per year to the carrying charge of the railroad company issuing it. Public utility companies appear to have paid over 1 per cent additional per year on the issue of taxable as against non-taxable securities, whereas industrial issues average much less, only 0.08 per cent additional for being taxable.

Inasmuch as the securities used in the computations were almost entirely those of high grade investments, with a wide demand among investors under any conditions, the added costs for taxable issues would undoubtedly be increased by including more speculative and less well-known issues, because these would require, probably, a greater margin to induce the investor to purchase them.

[j] A few details of this study may be of interest. Of the total 853 industrial bonds 13 had a theoretical yield exceeding 15 per cent. These were considered the near default group, and a loss was taken. The average market price of the group was 50 and the bonds were outstanding an average of 4.3 years. This required 50 per cent to be written off over 4.3 years or at the rate of 8.6 per cent a year. As the 13 bonds represented 1.52 per cent of the total, a correction to the total average yield of .01 per cent was required.

Of the total 853 bonds 43 had defaulted. The average market price of this group was 42.5 per cent. The average time between issue and default was 2.4 years; so the loss per year per bond was 24 per cent. As the de-

---

[10] Friedlander, A J., A Statistical Study of Industrial Bonds and Notes Issued Between 1912 and 1924, Harvard Graduate School of Business Administration (1924).

Relative Value of Industrial Preferred Stocks.—One other illustrative problem may be cited to show what is meant by group selection among investments. It has been contended by many stock-selling houses, ever since the trust-promotion period of the late nineties, that preferred shares of industrials afforded excellent investments. The usual allegations were that the income yield was large and that the preferred shares, having in the majority of cases no bonds senior to them, were in a prior lien position analogous to bonds. This contention was made in spite of the fact that in the real test of investment security, at the time of the reorganization of an industrial corporation, preferred shares are seldom given more than a slight and uncertain advantage over the common shares. Long before a reorganization has become necessary, the management has allowed notes and merchandise debts to accumulate which not only assume a senior position to the preferred shares but, in too many cases, absorb all the proceeds of a receiver's sale of the corporate assets. Nevertheless, not all industrial corporations with preferred shares have to be reorganized, so that any broad judgment of the wisdom of investing in industrial preferred shares, as a class, would have to be tested by other means.

To determine the relative value of industrial preferred stock as a class a study [12] of the current values of every industrial preferred stock of investment importance issued from January 1, 1915, to January 1, 1920, has been prepared. There were 607 such issues. On January 1, 1923, no quotations, not even from the issuing houses, could be obtained for 70 issues, and the investment value of these issues can be left to the imagination. At least nominal quotations of value could be obtained for the remaining 537 issues. The average price at time of issue was 99 per cent. On January 1, 1923, the

---

faulted issues constituted 5 per cent of the total group of bonds, a correction to the total average yield of 1.20 per cent was required.[11]

---

[11] See also Book IV, pages 820-821.

[12] Nicholson, S. F., Industrial Preferred Stocks as Investments, Harvard Graduate School of Business Administration (1923).

average price of the whole group was 70½, after full allowance had been made for those issues which had been called at a premium. The median of time of issue was in the latter part of 1918. The average dividend rate promised was a little over 7 per cent a year, so that if the investor had made a random selection of preferred shares during the eight years, including the war and the post-war periods, his total interest yield would have been less than his actual loss of principal. It is interesting to note also that of the 537 issues of which actual quotations could be found 114 were quoted at less than 25; and, of these, 59 were practically worthless.[k] Or, to put the matter more briefly, of all the industrial preferred stocks issued during the apparent prosperity of the Great War and the period immediately following, over 21 per cent of the issues became, within a few years, entirely worthless; and the investor in the group, as a whole, would have endured a depreciation in principal greater than the total income received from them.

The results of this study were so impressive that an exhaustive investigation was immediately undertaken to include every industrial preferred stock. This has just been completed.[13] An investigation was made of every industrial preferred stock issue offered to the public from 1880 to 1920. As there were practically no issues of this kind sold before 1880, it may be said that the study covered the entire ground down to the busi-

---

[k] The list included every industrial preferred stock issued between June, 1915, and June, 1920, referred to among the new issues in the *Commercial and Financial Chronicle,* amounting to $100,000 or more, except that 5 issues in excess of $25,000,000 each were omitted because of their extreme size. As indicated above, the inclusion of these large issues would tend to decrease rather than increase the present value of the whole group. The study included 607 issues, of which no quotations could be found in 1923 of 70 issues. Accordingly only 537 were statistically studied. The following table shows the annual rate of issue:

Year	1915–16	1916–17	1917–18	1918–19	1919–20
Number of Issues	87	85	48	68	249
Percentage	16	16	9	13	46

---

[13] The joint work of Messrs. Nicholson, S. F.; Wagley, E. N.; Frederick, P. L.; Brennan, G. E.; Leete, F. D.; Langmuir, J. D.; Brumder, W. G.; Van Houten, W. B. Jr.; Powell, J. W. Jr.; and Buchanan, W. E. All were graduating students of the Harvard Graduate School of Business Administration (1923-1926) working under the supervision of Dr. Arthur V. Woodworth. It is probable that a large part, if not all, of the study will be published.

ness reversion of 1920. All issues of less than $100,000 were excluded, also all issues which merely disappeared from existence or of which no recent quotation could be found.[l] After these adjustments there remained 1,477 separate issues representing a little less than five billions of dollars ($4,878,285,000) of cost to the American investors.[14] This entire group had declined by January, 1923, to approximately three and a half billion dollars ($3,677,775,000) or almost exactly three quarters of the original issue price (75.6 per cent). Had the largest issue of all been omitted, that of the United States Steel Corporation—quite in a class by itself—the result would have been a decline to approximately 70 per cent of the issue value.[m] This conclusion coincides with the result of the previous narrower study covering only the war issues. Furthermore if the comparison had been based on issues rather than on the issued amounts, the small issues having the same weight as the large ones, the relative depreciation would have been even greater. In other words industrial preferred stocks, as a great group, have endured a loss of approximately 25 per cent from their value at the time of issue.[n]

---

[l] It should be noted that the previous study of Nicholson included 607 issues of which 70 could not be later accounted for—thus leaving 537 or 89 per cent which could be used in his study. In the exhaustive composite study outlined above, all the unaccounted issues were omitted. As most of these were failures the final results would have indicated even a poorer record for preferred issues than that outlined above.

[m] It should be noted that a few large industrials give a conspicuous advantage to the entire group. In fact were it not for the inclusion of 18 large industrials, whose issues were successful, the showing of the whole group would not have been nearly as favorable. Thus of the $2,487,000,000 of value, including all issues the price of which was 90 or over (or had been called), $1,132,080,000 of value was represented by 18 issues out of 391. That is 4.6 per cent in number of the successful issues contributed over 46 per cent of the value of the successful preferred issues. Or again, these 18 large successful issues constituted a little more than 1 per cent of the total number of issues, yet they contributed nearly 25 per cent of the final value.

[n] The percentage of the total *par value* of the issues falling in the different price groups based upon 1923 quotations is as follows:

	0–25	26–50	51–75	76–90	91–99	100 up	Called
Per cent in each price group (par value)	19.8%	7.7%	10.7%	11.5%	9.0%	35.6%	5.6%

---

[14] Observe that in this study cost to the investor is used rather than par value of the securities. The par value would be a little greater, probably almost exactly $5,000,000,000.

A further examination was undertaken of the different industries included by all these 1,477 preferred stock issues.[o]

From this it is seen that 41.2 per cent of the total par value was selling at par or more per share or had been called, while 27.5 per cent was selling below $50 per share. Yet if the *number* of issues is taken into consideration, a different impression is obtained.

	0–25	26–50	51–75	76–90	91–99	100 up	Called
Per cent in each price group (number of issues)	29.8%	7.8%	9.1%	12.5%	11.6%	22.1%	7.1%

Only 29.2 per cent of the number of issues were selling at par or above, while 37.6 per cent of the issues were quoted below $50 per share in 1923, and nearly 30 per cent below $25 a share.

It is interesting to note, and perhaps reassuring, that the median point, when the results are arranged by groups, is 74.95. The percentage of present value to original value, for the whole, disregarding groups, is 75.6 per cent.

[o] Comparison of Total Issue Amount and Total Present Amount of 1477 Industrial Preferred Stocks Issued Between 1880 and 1920 by Industrial Groups[15]

Industrial Groups	Number of Issues	Issue Amount	1923 Amount	Loss to Investor	1923 Amount to Issue Amount In per cent
		............000 Omitted		....	
Iron and Steel Mfg.	50	$669,661	$701,659	$31,998 (gain)	104.8%
Clothing	34	54,438	52,889	1,549	97.2
Chain Stores	32	105,279	99,341	5,938	94.3
Road Equipment	39	161,249	148,453	12,796	92.2
Tobacco	21	166,224	148,027	18,197	89.2
Oil and Refining	33	246,874	218,622	28,252	86.6
Miscellaneous Foods	49	162,045	139,989	22,056	86.4
Milling	27	36,643	31,429	5,214	85.8
Dry Goods	33	55,441	46,086	9,355	83.2
Convenience	28	59,204	49,145	10,059	83.0
Shoe and Leather	44	151,435	121,593	29,842	80.3
Miscellaneous Equipment	94	118,535	95,169	23,366	80.3
Cotton Goods	55	91,425	71,438	19,987	78.2
Agricultural Equipment	30	131,217	101,845	29,372	77.1
Iron and Steel Products (mostly specialties)	59	266,819	204,798	62,021	76.8
Miscellaneous Metals	31	114,434	86,316	28,118	75.4
Chemicals (median by industries)	62	161,022	121,097	39,925	75.1
Sugar and Candy	59	245,481	183,701	61,780	74.8
Tire and Rubber	78	327,049	234,812	92,237	72.1
Coal, Iron and Coke	54	114,513	79,138	35,375	69.2
Office Equipment	30	42,934	28,711	14,223	66.9
Mercantile, Other	31	73,591	47,526	26,065	64.6
Auto Accessories	35	70,756	50,601	29,155	63.4
Textiles Other than Cotton	47	134,267	84,048	50,219	62.7
Meat and Fish	30	48,699	30,268	18,431	62.1
Building Materials	67	118,585	71,811	46,774	60.6
Real Estate	41	90,331	56,567	33,764	60.4
Autos and Trucks	54	180,149	107,990	72,159	59.9
Construction	34	133,234	73,018	60,216	55.1
Specialties	59	95,271	50,988	44,283	53.6
Paper and Publishers	65	126,816	55,224	71,592	43.6
Electric Equipment	26	48,698	20,674	28,024	42.0
Transportation	25	148,473	53,987	94,486	36.3
Brewing and Distilling	23	118,493	10,825	107,668	9.1
Total	1477	$4,878,285	$3,677,775	$1,200,510	75.6%

---

[16] $73,613,000 par value is excluded for want of information regarding Issue and Present Amounts.

$459,521,000 par value is excluded because included in other corporations, and results evidenced in the consolidated company.

Also, throughout the study, all issues below $100,000 excluded.

These industries were divided into 34 groups, and the relative success of the preferred stock issues in each group compared. Only one group of the 34 shows a sustained enhancement of value to the original purchaser—the Steel companies—and this amounted to less than 5 per cent. All the other groups evidenced losses. It is interesting to observe in this connection that of the industrial corporations issuing preferred stocks to be sold to the public, those manufacturing luxuries have not been as successful as those producing necessities. Apparently, as a whole, those industries which have been able to adopt large-scale methods of reaching the ultimate consumer have been the most successful. But broad generalizations such as this are so burdened by exceptions and explicatives that they have little value.

An attempt, also, was made to ascertain the final relative value of those preferred stock issues which had various special features added to the ordinary preferences as "selling features." In this connection it was found that preferred shares issued with participating, convertible or common stock bonus and common stock warrants have not been as successful as the "average" unadorned preferred stock. A very small proportion of these special feature preferred stocks sold above par and a large proportion of them were selling for less than $25 a share. Apparently the proportion of these "special feature" preferred stocks is not increasing.

Supplemental to this study a comparison was made of the relative amounts of preferred stock issued during recent years to ascertain whether the rate of issue was increasing. Apparently there is little change.[p]

---

[p] (000 omitted)

	Total Corporate Financing	Preferred Stock Financing	Class A Stock Financing	Ratio of Preferred Stock Issued to Total Corporate Financing	Ratio of Class A Issues to Total Corporate Financing
1921..........	$2,414,900	$43,370	....	1.8%	0%
1922..........	3,066,400	181,550	8,310	5.9%	0.24%
1923..........	3,261,400	215,800	20,400	6.6%	0.63%
1924..........	3,838,000	106,900	31,584	2.8%	0.82%
1925..........	4,737,600	309,643[16]	120,745	6.5%	2.55%

---

[16] During this year one single issue amounted to $85,000,000. Statistics from the monthly summaries of the *Commercial and Financial Chronicle.*

It was hoped that some method might be worked out to indicate whether the large apparent annual yield—usually 6 per cent to 8 per cent—on the successful issues was sufficient to compensate for the losses in principal. Numerous statistical assumptions were made which rendered the final result somewhat doubtful, yet all the evidence pointed to the conclusion that, after allowing for cessation of dividends on the large proportion of issues that failed, the net return on the group as a whole was probably less than that on a random selection of medium-grade bonds. And if the depreciation of principal was allocated over the income period it appeared to be quite certain that the net return to the investor was less than pure interest. In other words, industrial preferred stocks as a group have not yielded a risk premium above pure interest sufficient to offset the heavy losses of principal. As a group they illustrate a poor investment.

Trust Fund Investments.—It is to be regretted that so few empirical studies of actual investment funds have so far been made. Nor have these few always been received with the fullest confidence. In spite of this, however, it is probably true that they should inspire greater respect than the counterfeit judgment of many who represent themselves as skilled in the art of investment.

A series of investigations has been undertaken, through a study of the probate records, of the success of trust company and lawyer-trustee administration of trust funds which passed into fiduciary control before 1900. Owing to the comparatively few large trust funds which passed into trust company control before 1900, the studies had to be extended to include those which began to be administered after the turn of the century. Four such studies have been made, each dealing with from 4 to 8 trusts. The original value, the income and the appreciation or depreciation down to 1922-24 was carefully computed. With the single exception of one trust,[q] administered by a small suburban trust company, every one of the trusts administered by a trust company showed a conspicuous depreciation of principal. Nor was the income commensurate, for the average return throughout the period of fiduciary control, in practically every case, was less than 4¾ per cent. Only a few trusts administered by lawyer-trustees were studied. These all showed a depreciation of principal, but not as pronounced as in the case of the trust funds administered by trust companies.

---

[q] The appreciation in this case was due to the fact that the testator left a large amount of urban real estate, which the trust company did not

These trust companies expend large sums each year in advertising their ability to safeguard the funds of the widows and orphans. Their advertising material is designed to bring tears to the eyes of those who would have their estates administered by private individuals. While a totally inadequate number of trusts have been studied to enable one to form broad generalizations concerning the ability or lack of ability of the professional trustee in the administration of investments, the few that have been studied do not excite admiration.

---

sell. The investments which the trust company made on its own initiative showed a depreciation of principal.

Make a study of [illegible]
dealing in [illegible]
[illegible]
in different and
capital [illegible]
[illegible] in a comparat
manner as
[illegible]

CHAPTER III

INVESTMENT WITH REFERENCE TO THE INDUSTRIAL CYCLE, SHORT-PERIOD INVESTMENT

Importance of Industrial Cycle Theory.—There is discussed in this chapter the application of the principles developed in the preceding chapter to the practical problem of investing funds over a relatively short period. In such a relatively short period the so-called industrial cycle is the dominating factor. In the next succeeding and the last chapter is discussed the application of the same principles to investment over a long period of time, in which the individual fluctuations of the industrial cycle become of relatively small importance, and the long-time trends of prices, interest rates and national prosperity are of dominating importance. In the case of the industrial cycle we are dealing with the short-term pulsations of industry, which control, within their limited scope, the demand and supply market for capital over a narrow period of time. Thus understood the significance of the industrial cycle has become almost universally recognized.

Many causes are responsible for the increasing recognition of the importance of the industrial or business cycle in practical affairs. Chief among them, probably, is the wide-spread acknowledgment of its existence. The sudden reversal of business activity in the summer of 1920 had been predicted with remarkable accuracy by many economists, who employed merely the simplest statistical methods, coupled with common sense, in applying the widely-recognized principle of successive contractions and expansions to business. But the practical business man had been inclined to scoff at this theory as an abstraction of theoretical economists, perhaps applicable to past events but valueless in forecasting the future. The interesting revelation of the past few years is that those practical business men, who heeded the warnings of the economists in the spring of 1920, did not make the acquaintance of bankers' committees in the spring of 1921; those who did scoff either had their business experience somewhat widened by intimate association with unsentimental, albeit friendly, bankers, or else are now watching the game from the side-lines. Consequently, the theory of the industrial cycle has acquired a substantial, if belated, respect. It is the purpose of this chapter to study its application to the theory of investment.

It is not the purpose to discuss the industrial cycle or enter into controversial questions. The existence of successive contractions and expansions in industrial activity is assumed as a postulate by the title to this article; and the underlying causes are passed over as being aside from the present discussion. It is merely necessary to observe that from time to time in our industrial history certain groups of events occur and recur in close temporal relation to each other; and this juxtaposition of events seems to bear approximately the same relationship at each recurrence. This is all we need to assume. At a time of rising prices, profits to producers and distributers will be found to be increasing; wages will rise by the bidding of one producer against another in order to increase production; interest rates will rise owing to the increased demand for capital required to produce more goods; and finally, the rentable value of real property will increase. After a while, the tension on the productive machinery becomes too great. Something breaks. The tension is relieved by a more or less sudden stoppage of demand for goods. Prices fall, and production temporarily ceases. The proprietors of businesses suffer losses; wages drop; interest rates fall. Business activity undergoes a period of rest—to be followed presently by a renewed demand for goods, a renewed courage to embark on production—and the slow upward swing of the pendulum begins. Business expansion follows contraction; contraction follows expansion.

The Time of Investment.—All this is now perfectly familiar to the enlightened business man, but its bearing on the theory of investment is not so apparent. The rate of return on capital is fundamentally the balance between the demand of new capital in the production and distribution of goods on the one hand, and the available supply of capital itself seeking employment on the other. The particular stage, therefore, of the cycle at which the individual investor would inject or withdraw his particular bit of capital is a matter of grave concern to him. Is he offering it at a point in the cycle when it is particularly wanted, owing to the rapid pulse of production, or at a point when the available capital is ample for the requirements of industry? This is a question not only of grave concern to the individual investor but of distinct social importance.

This question of the time of investment should be seen in its proper perspective. On the one hand, it is obvious that investment values are themselves inherent in the industry or the security itself—as electric power investments have been, during the last quarter century, inherently better investments than electric railways. Nevertheless there is also, on the other hand, an opportunity for a true economic profit in the choice of the appropriate time to make different classes of investments. This has nothing to do with the inherent and abiding values of the investment itself, but rather with the relation of the investment to the background of other economic values. The interrelations of these other economic values are to be seen, through a period of time, as the industrial cycle.

In the preceding chapters the fundamental elements of investment yield were discussed on the assumption that they were more or less static or at least remained relatively fixed. This is not true, for the ever-changing background of economic, political, and social events affects profoundly all investment values. It was pointed out that the income return on an investment consists primarily of three different elements, (1) pure interest—the price of riskless capital, (2) an insurance or risk premium to compensate the investor for possible loss and, finally, (3) a kind of profit (or loss) resulting from business skill in selecting an investment leaving a higher risk premium than its actual risk involves. Obviously this last, a true investment profit, may arise not only in selecting the proper investments, but also in buying and selling different investments at such times that the investor derives a profit through the changes in the popular estimate of their value. For it is to be remembered that the purpose of the wise investment of capital is the maintenance or the increase of the capital fund rather than the support of individual undertakings. Thus, the investor should have no sentimental interest in holding one security or another, and no reluctance about changing rapidly from one type of investment to another—any more than a merchant has a reluctance about the rapid turnover of his merchandise or the banker of his bills. His concern should be in the total fund, rather than in the individual investments—the latter being merely the means to the end.

Pure Interest and the Industrial Cycle.—If the analysis of investment yield heretofore given is correct, the present problem narrows itself to the effect of the industrial cycle upon pure interest on the one hand and the risk premium on the other. That is, the individual investor must be mindful that a true economic profit arises through buying and selling investments with due respect to the trend of economic conditions as reflected in the industrial cycle.

Pure interest arises as the price of capital. This price establishes the point of balance between the demand for capital from business producers and distributers of merchandise, municipalities and governments for expenses and improvements, and the supply of capital offered by savers. This being true, anything which tends to stimulate the demand for capital among business men—provided it is not met by a corresponding and proportionate increase of the supply—must result in raising pure interest rates. If a combination of economic phenomena results in an increase in the supply of investment capital, without a corresponding increase in the demand among users of capital, then pure interest rates fall inevitably.

Therefore, unless there exists a machinery in the industrial order to bring about an increase in the supply of capital, synchronizing with the increase in the demand, and a decrease synchronizing with the decrease in the demand, there must be periodic rises and falls in the pure interest rate. No such adjusting machinery does exist in the industrial order; and one of the outward signs of these recurrent maladjustments between the demand and supply of investment capital is the industrial cycle.

This train of reasoning can be illustrated by noting the effects of the upswing of the industrial pendulum upon pure interest rates. At such a time the returning confidence of consumers stimulates production, even on a rising scale of prices, and producers are induced to manufacture increasing quantities of commodities. This increasing scale of production requires more capital, both for plant and for inventories. Such a configuration of conditions, however, in nowise tends to increase the supply of capital; on the contrary, should interest rates remain the same, the supply would decrease owing to the employment of surplus capital in their own businesses by certain producers who would, in dull season, offer it to others. Inevitably, then, with the rising tide of business activity, as producers bid against each other for the available capital, there will be a rise in interest rates.

Conversely, at the period of business stagnation and depression there is little incentive for business men to provide even a normal output of goods—much less bid for new capital with which to extend production. Consequently, the demand for new capital will be slight. On the other hand, the supply instead of declining, with the declining tendency in the demand for capital, will actually tend to increase, furthered no doubt by the wide-spread forebodings of ill which always prevail during the depression which follows the prodigality of the business boom. During such a period of rest, therefore, pure interest rates will be low.

Changes in the level of pure interest rates affect directly the market value of all investments, particularly those like bonds which bear a fixed rate of return. An investment is merely a right to receive either a fixed or a varying sum of money each month or year. The market value of this investment is the market value of this right to receive an income. If the prevailing pure interest rate is 3 per cent, then a riskless investment carrying a right to receive $30 a year would be worth exactly $1,000. If the prevailing pure interest rate, however, should suddenly increase to 6 per cent, then the investment, still having an annual return of only $30, would be worth only $500—or the principal amount which, if invested at the prevailing rate of 6 per cent, would yield $30. In other words, granting that we are dealing wholly with unmaturing investments (like British consols) which for a moment, for the sake of simplicity of exposition, may be considered to be without risk, then the market value of the investment falls as pure interest rates rise and rises as pure interest rates fall. This principle is so fundamental as to constitute as near a law as any generalization within the field of investment. It states that, irrespective of the influences which play upon the relative security of a particular investment, and irrespective of other economic forces, a rise in pure interest rates tends to depress all investment values, and conversely a fall in pure interest rates tends to enhance all investment values.

Law

This simple principle has a very direct bearing upon the influence of the industrial cycle upon investment values. During such periods as the up-swing of the industrial cycle, pure interest rates tend to rise. Consequently the market price of those high-grade bonds, the yield on which is largely pure interest, will fall. And, conversely, during the down-swing of the pendulum as pure interest rates fall, high-grade, low-income bearing bonds will rise in market value. In other words, to the extent that the yield on an investment is pure interest, its market value will move inversely to the swing of the industrial pendulum.[a] This principle applies irrespective of corporate earnings and the credit of bond-issuing governments and municipalities.

Recognized Estimate of Investment Risk.—This analysis applies to the value of the investment in so far as it is a return on pure interest. It touches only a part of the story, however, because in addition to pure interest, the yield on all investments is at least partial compensation for risk. Even the "safest" bonds consist to some extent at least of premium for the compensation of risk, so that to predict accurately the effect of the industrial cycle upon investments in general, or upon the market value of an individual security, it is necessary to note also the effect of the industrial cycle upon so much of the investment yield as is a premium for the assumption of risk.

---

[a] This principle is not in actual practice so strictly true as the rigidly mathematical statement given would imply. A graph of the course of the average prices of high-grade, low-risk, long-term bonds would not be the exact inverse of a graph of the industrial cycle. As a matter of practical observation, the graph of high-grade bond prices tends to precede, in time, the graph of pure interest rates and the graph of the industrial cycle itself. This is due to two main reasons: (1) Traders in high-grade bonds anticipate the immediately following course of the market. Long observation and natural shrewdness lead them to forecast with remarkable accuracy the forthcoming trend of bond prices. They have learned to observe the many outward signs of either an increase or a decrease of demand for capital which presage a change in pure interest rates, and accordingly seek to profit by the forthcoming change by purchasing for an anticipated rise in price level and selling for an anticipated decline. Consequently, changes in bond prices precede in time the corresponding changes in pure interest rates. (2) The graph of the industrial cycle is usually constructed—as a matter of statistical practice—from data covering various concomitant factors—prices, bank clearings, rates on long- and short-term money, corporate earnings, wages, and frequently other variables supposedly interrelated. Though undoubtedly all these factors fluctuate more or less in harmony with the cycle, their movements are not synchronous and consequently what might be called the major graph of the cycle itself is either (a) the resultant of all these elements or factors in which the position, in time, of the various points of the industrial cycle graph with respect to its constituent elements depends on the relative weighing of these elements; or (b) the median of all the constituent factors, in which case it necessarily lags behind the more mercurial responsive factors and precedes the slower-moving, more unresponsive factors (such as economic rent). Under either method of portrayal, pure interest rates, being very sensitive to the highly mobile factor of capital demand and supply, will almost certainly move ahead of the general trend of the cycle. Consequently a graph of high-grade bonds, which according to the text above should have its high point coincide exactly with the low point of the industrial cycle and vice versa, will have its high point a little before the bottom of the cycle and its low point a little before the top of the cycle.

This note is added to indicate that the theoretical relations expounded here cannot be made to coincide exactly, chapter and verse, to published statistical curves. Nor are the practical implications sufficiently accurate to indicate exactly when to buy and sell bonds.

The economic value of risk is always to be measured by the estimated uncertainty. The risk of drawing one black ball from among nine other white balls is one in ten, and the risk value is one-tenth, or 10 per cent. And if one were to be insured against such a contingency, a charge of exactly 10 per cent would be the adequate premium. But if the number of white or black balls should be changed from time to time, then the economic value of the risk of drawing a black ball would change in exact correspondence with the change in the number of white or black balls. Moreover, it is of great importance to observe that if the players should think that the number of white or black balls was changed, whether or not the change actually occurred, the generally accepted premiums would change as decisively as if the changes had certainly occurred. In other words, it is not necessarily the absolute or objective value of the risk that determines the premium, but the generally recognized or acknowledged estimate. This may or may not coincide with the objective, but it is the pragmatic determinant so far as the market value of the risk is concerned. True, if the generally recognized and the actual risk differ, then in the long run the consistent buyer or seller of the risk will make a profit. But this is another matter. The important thing to note is that the generally recognized value of the risk, upon which its premium is determined by buyers and sellers, determines its price rather than its absolute value. For example, life insurance companies require an extra premium from unusually tall men, owing to the supposedly greater hazard, but American experience tables do not afford sufficient data to certainly assign a lower expectation of life to this class. Nevertheless, the extra premium is charged on the basis of what the life actuaries believe to be true rather than what is susceptible of objective proof. In other words, it is the generally recognized rather than the certain value of the risk that determines the premium.

This distinction between the objectively real and the subjectively apparent may seem perhaps to carry us far afield from the main issue of this discussion, but its importance lies in the simple fact that men's actions are based on what they think to be true rather than what, objectively, is true. Behind all the facts of economics are the facts of psychology. Economic values are the translations of certain fundamental states of mind into terms of the material means for satisfying our wants, but these states of mind, except as the arbitrary postulates of the psychologist, are never simple. The emotions of fear and confidence, the judgments of doubt and certainty, constitute a very important medium through which we see the economic values. All this is true in the light of any voluntaristic psychology, where value is postulated upon action, and action upon emotional attitude; and it has its especial bearing upon the ordinary processes of mind by which the investor places a value upon securities.

The risk premium of investment securities is only the consensus of a vast number of judgments of economic values, in which the emotions of fear and confidence and the more reflective judgments of doubt and certainty play an enormously important part—the more so, because the values we place upon investment securities are far removed from direct experience. The psychologist would find himself confronted with a tremendously difficult and complex problem, if he tried to analyze into his elementary mental states the "complex" at the time a trained investor was seeking to decide, during a bear raid on the stock market, whether to buy Swiss 8s or General Electric stock. De Quincey called political economy the dark science, but he was unfamiliar with what is now called psychology. Suffice it to point out, however, that fear and doubt, confidence and certainty, irrespective of the objective grounds for these states of mind, color our processes of evaluating investment securities. Consequently, when the general social environment is surcharged with doubt and fear, the individual investor, following the crowd, will assign to investment securities in general, greater doubt and uncertainty than is warranted by more intellectual judgments devoid of an emotional coloring.

Investment Risk and the Industrial Cycle.—We are now in a position to observe the bearing of this upon the valuation of risk during the industrial cycle. Let us consider first the up-swing. At this time prices are rising and profits increasing. The reports of corporations show, consistently, monthly increases in both gross and net earnings. Consequently the risk involved in purchasing all securities will be less than during the preceding stages of the cycle, for the greater the general business prosperity and the larger the corporate earnings the more certain are interest payments and continued dividends.[b] At such times, therefore, the actual or real risk premium of all securities will be less than during the down-swing. Nor is this all, for added to the actual decrease in the risk premium due to changes in fundamental economic conditions, there is a still further underestimate by investors in general. That is, not only is the actual risk less, but the atmosphere will be so charged with optimism that investors will still further underestimate the risk.

The reverse is true during the down-swing of the pendulum. Not only is the actual risk greater—owing to falling prices, declining inventories, failures, and unemployment—but this greater risk will be exaggerated on every hand. The atmosphere becomes surcharged with pessimism. The investor will see danger lurking in every direction. Consequently he will require a greater risk premium than the conditions, uncertain though they are, actually require.

---

[b] Like practically all general rules in the social sciences, this simple generalization, apparently true for the vast majority of cases, is subject to a variety of interesting exceptions. From observation one may be inclined to believe that securities of certain restricted types of industry are sounder during the down-swing than during the up-swing—gas securities, for illustration. Gas companies have the selling prices of their chief product determined by government commissions, whereas the prices of the things they consume are determined by economic forces. Consequently during the up-swing of the cycle, the prices of purchased commodities rise more rapidly and more steadily than slow-acting commissions will allow the gas companies to raise their prices of gas. The margin of profit is therefore continuously compressed. During the down-swing, on the other hand, the prices of the things these companies buy fall more rapidly than the commissions force down the price of gas. The margin of profit is, therefore, continuously expanded.

These changes in the actual value of the risk premium are reflected directly in the market price. In other words, a change in the general judgment of the risk inherent in a security is not reflected directly in its fixed yield but in its market price. An example will make this clear. Suppose, for the moment, that the pure interest rate remains constant at 4 per cent, and that the chance of loss of the principal of a certain bond is one in fifty. The pure interest and compensation for risk will, therefore, together amount to 6 per cent. Suppose the coupon rate of the bond is 6 per cent, then the market price—barring, for the moment, all consideration of business profit in the selection of the bonds—will be exactly par. Now suppose, a while later, after the bond is in the hands of an investor, something occurs to alter the general estimate of the chance of loss either of bonds in general or of this particular bond, so that the chance is believed to be just twice as great—namely, 1 in 25. The adequate risk premium is now 4 per cent and the yield to the investor should be 8 per cent, instead of the 6 per cent of the coupon. The bond, however, is already in the hands of the investor and the issuing corporation or government cannot or will not alter the coupon rate. Inevitably, therefore, the market price of the bond will fall from par to a price such that the yield to the investor will be 8 per cent. Obviously, the converse also is true. If the general estimate of the chance of loss decreases so that a lower risk premium to the investor is adequate, the market price of the bond will rise. In other words, changes in the general estimate of the amount of premium required for compensation for risk are not, except in certain common stocks, reflected in the yield but in the market price of the security.

From these simple observations it appears that during the up-swing of the industrial pendulum and at the top, an underestimation of the risk tends to increase the market price of securities over and above the level which might be fixed were the risk estimated by purely rational, keen, calculating judgments. And, conversely, during the down-swing and at the bottom they would sell for less than their value, due to the over-estimation of risk resulting from the economic hysteria.

The changes in the estimate of risk will not be the same for all securities. True, the actual and the estimated risk of all securities during the down-swing will be greater than during the up-swing of the cycle, but the so-called "low-grade" securities will be affected most and the so-called "high-grade" securities least. Not only is the actual risk of debentures and common stocks proportionally greater than high-grade bonds during the down-swing, but the popular exaggeration of this increased risk also is proportionately greater. Consequently the fluctuations in market value, by reason of changes in the estimate of risk, will be greatest in the low-grade securities and least in the high-grade securities. In other words, the greater the inherent risk in a security, the greater will be the change in the market price resulting from the oscillations of the cycle.

Opposite Effects Upon Two Elements in Investment Yield.—Briefly put, the results of this discussion so far are that economic and psychological forces behind the industrial cycle affect the market price of investment securities through the two channels of the pure interest rate and the risk premium. Yet the effect of the cycle upon the two elements in the investment yield is in opposite directions. During the up-swing of the cycle pure interest rates rise, but at the same time the risk premium falls; during the down-swing pure interest rates fall, but the risk premium rises. And since a rise in either element of the yield depresses the market price of the security, or a fall in either element brings about a rise, the price during any period of the cycle is being depressed by one element of the yield and pushed up by the other. It is, as it were, subject to two separate tensions exerted in opposite directions. Several times, in this discussion and elsewhere, it has been pointed out that, while the pure interest component of the investment yield is the same for all securities, the risk element varies with each security. And moreover, while the influence of the cycle upon a uniform pure interest rate will be uniform for all securities,[c] its influence upon the risk premium is different for each security—because the absolute as well as the estimated amount of risk premium is different for each security. Consequently the extent to which a change in the cycle will be reflected in the market price of any particular security will depend on the relative amounts of pure interest and compensation for risk included in the amount of its yield. This, in turn, depends on the character of the security.

This will perhaps be clearer in the light of an illustration. The estimate of the risk premium on a water bond of an eastern city at, say, the bottom of the cycle is one in a hundred or 1 per cent. At the same time, in the midst of the depression when mills are closed and industry stagnant, the risk premium

---

[c] All securities in a given market, at least. Whether or not we could say all investment securities the world over would depend on the interpretation of the place to be assigned to the inertia of capital to move from one investment market to another. If pure interest is to be gauged by the return on securities having a world-wide market—any variations in price being quickly obliterated by arbitrage purchases and sales—then we can refer to a single pure interest rate the world over at any one time. But unfortunately, in practice, there are not such international securities in sufficient number to supply adequate equilibrium; consequently a plethora of loanable capital in London would result in abnormally low pure interest rates in London. Ultimately this would affect the pure interest rate in New York—and finally in Oshkosh and Hiram Four Corners—through the movement of capital from London to New York and finally to the remote by-ways of the country. But such a process requires time, and for any instant of time the balance between the demand and supply of loanable capital may establish a different equilibrium price in different capital markets. Were capital absolutely mobile, so that a world-wide static equilibrium would follow inevitably any disturbance anywhere in the balance between the demand and supply of loanable capital, then we could refer to the same pure interest rate everywhere, for local as well as international securities. But this is not so, and a kind of continual dynamic readjustment is always going on because of the inertia of capital at different centers. Consequently, there is a kind of differential to be added to the pure interest rate as determined by riskless or near-riskless local securities. In the text above we are not considering such a differential, preferring the simpler conception of pure interest as determined by a world-wide balance between the demand and supply of investment capital. In the long run, such a description is true in practice through the arbitrage of foreign exchange and international securities.

Illustration of industrial cycle upon water bond and com stock of steel co.

on the 8 per cent common stock of a steel company will be publicly gauged at 4 per cent. At the top of the cycle the estimate of the risk inherent in the water bond will be slightly less, a reduction in the estimate of loss from one chance in a hundred to one in a hundred and twenty-five. The risk premium on the water bond will decline, therefore, from 1 per cent to eight-tenths of 1 per cent. But during the same period the winter of discontent in the steel industry has changed to glorious summer, so that whereas the risk on a steel stock at the bottom was regarded as 1 in 25, with a premium of 4 per cent, the same steel stock at the top of the cycle will be regarded as having only a slight risk, say one in two hundred or one-half of 1 per cent. Thus, although the effect of the change of the cycle upon the pure interest component is the same for both the water bond and the steel stock, reducing the market value of each by the same relative amount, the effect on the risk component of the two securities will be very different. In fact, the decline in market value of the water bond, due to rise in the pure interest rate, might be greater than the increase in market value due to a decline in the risk premium from 1 per cent to eight-tenths of 1 per cent. Consequently there may be a slight decline in the quotation of the water bond—the depressing effect of a rise in pure interest rates more than offsetting the slightly greater confidence in the security engendered by the wide-spread economic prosperity. On the other hand, while the rise in pure interest rates will somewhat depress the market value of the steel stock, in company with all securities, nevertheless the very conspicuous decline in the actual and the estimated risk inherent in that particular steel stock from 4 per cent to one-half of 1 per cent will bring about a very conspicuous rise in its market price.[d] To outward appearance, therefore, the effect of the industrial cycle upon the two securities will be diametrically opposite.

---

[d] The changes in the market value can be further illustrated by completing the figures used in this illustration. Suppose the 5 per cent New England water bond is due a hundred years hence, so that amortization is not an appreciable factor. With pure interest rates of 4 per cent, at the bottom of the cycle, and the estimated risk premium of 1 per cent, such a bond will have a market price of par, or 100. At the top of the cycle the pure interest rates will be, let us say, 5 per cent and the estimated risk on

The distinction of the effect of the cycle upon the two factors is important. Upon its clear understanding depends the intelligent forecasting of the effect of the industrial cycle upon all securities, notwithstanding their inherent differences. It shows that, while all investments tend to decline in price with the up-swing of the pendulum and to rise in price with the down-swing—because pure interest is an element in the return on every investment—this tendency is not alone in determining the fluctuations in value. Coincident with the trend in value by reason of changes in the pure interest rate, all securities tend to rise in value during the up-swing of the pendulum owing to the greater prosperity and the popular optimism which underestimates the risk and the appropriate amount of risk premium, and to decline in value during the down-swing owing to the actual increase of risk and its general over-estimation. Consequently the actual market price in any case must coincide with the resultant of these two tendencies; and whereas the effect of the pure interest element is uniform, that of the risk premium varies between very wide limits according to the nature of the security.

Practical Consequences of Theory.—This theoretical analysis has certain practical consequences. Let us consider extremes, first—very secure bonds on the one hand, and very

---

this bond eight-tenths of 1 per cent—requiring a net return to the investor of 5.8 per cent. The 5 per cent bond will have a market value of about 84. On the other hand, the steel stock, at the bottom of the cycle, with pure interest rates of 4 per cent and risk premium of 4 per cent will have a market value of par, if it is paying 8 per cent. At the top of the cycle the pure interest rate is 5 per cent, but the risk premium is only one-half of 1 per cent. The stock is still paying 8 per cent dividends. Its market price has become about 145. In other words, although the rise in pure interest rates had the same depressing effect upon the market price of both securities, nevertheless this decrease in price was only to a small degree counter-balanced by decline in the estimated risk of the water bond but more than counter-balanced by the decline in the estimated risk of the steel stock. Such an illustration indicates how futile are general averages of the prices of a random selection of securities to indicate the swing of the industrial pendulum.

risky stocks on the other. If a long-term, widely known bond has a very high investment standing and a low yield—only slightly above pure interest—the pure interest rate constitutes practically all of the yield. Consequently, the market price will rise and fall inversely to the rise and fall of the pure interest rate, the slight changes in the risk premium having an almost negligible influence on the market price. Very well-secured railroad, municipal, and government securities fall within this category. If the statistician computes the course of the average of a group of such bonds, he will find that the graph is an inverse of pure interest rates, and the course of the industrial cycle.[1] . On the other hand, the market price of securities the yield on which is largely risk premium—industrial common shares, mining and oil stocks—will respond very largely to changes in the public estimate of the risk premium, the changes in market value incident to changes in the pure interest rate being swallowed up in the changes incident to those in the risk premium. The graph of such a group will synchronize with the course of the industrial cycle itself. There is no rigid classification of securities along these lines, the distinction being one of the relative influence of the two factors, or rather the relative amounts of pure interest and compensation for risk included in the yield. Between the two extremes there is undoubtedly what might be called a twilight zone where the influence of changes of pure interest rate approximately balances those of the risk premium.[e]

Practically, all this shows itself in the effect of the industrial cycle upon the market price of different types of securities. Those bonds, like well-secured railroad bonds and high-grade municipal and government securities, will decline with the up-

---

[e] If this analysis is true, it indicates that statistical averages of bonds in general or general bond yields, such as are frequently used, are of little value. On the other hand, the average of a half-dozen long-term, very secure, well-known and generally quoted taxable bond yields will give an accurate index of changes in the pure interest rate. As soon as miscellaneous bond yields are included, the disturbing effect of the cycle upon individual risk premiums of various sizes renders the result of little value.

---

[1] Subject however to the reservations noted in footnote (a) page 1211.

swing of the industrial cycle and will be lowest in price at the top of the cycle where, through the great demand for investment capital, the pure interest rate will be lowest. Such bonds will rise in market value with the down-swing of the pendulum and will be highest during the succeeding depression. Securities of which the risk premium contributes the larger element of the yield—industrial, oil and mining shares—will be quoted lowest during an industrial depression. They will rise in value with the up-swing—as people become embued with economic optimism, as prices of commodities, profits and wages rise—until at the top of the cycle they will be quoted highest. Intermediate between these extremes there are undoubtedly some bonds which remain constant in value, because the influence of the changes in the cycle upon the pure interest factor and risk premium exactly neutralize each other.

Further, the practical results of these deductions are obvious. Speculative, high-risk premium securities should be sold toward the top of the cycle and the proceeds of their sale invested in such securities as have a minimum of risk premium in their yield; these in turn—the so-called "high-grade" bonds—should be sold toward the bottom of the cycle and the proceeds reinvested in stocks and speculative bonds having a large element of risk. Or, to phrase the matter differently, common stocks should be sold toward the top of the cycle and seasoned, long-term bonds bought; these should be sold toward the bottom of the cycle and speculative common stocks purchased.

The author is aware that this conclusion is neither attractive nor easy to follow. At the top of the cycle the common stocks will be propped up by rumors of marvelous corporate earnings, of extra dividends, and by a general economic exhilaration, while at the bottom of the cycle the general pessimism will encourage the retention of the old and tried "gilt-edge investment" bonds and discourage the purchase of stocks of companies showing deficits rather than net earnings. Investment wisdom, however, consists in doing the "wrong" thing at the "wrong" time.

The foregoing practical course of procedure is suggested with considerable hesitancy. Anything savoring of a rule to deal with the stock and bond market is apt to be construed as a get-rich-quick formula, one among many. Moreover, the forecasting of the security market has become of late a widely advertised business by those endowed with economic omniscience, although the omniscience is sometimes more obvious after the reaction than before the action.

Constantly Changing Investment Situation.—There is one presumption to which this theory of investment practice, or in fact any intelligently constructive theory of investment, runs counter, in spite of its prevalence. It is the presumption that "good" investment securities, once acquired, should be kept. The purport of this chapter, and of this entire section of the book, is that the whole investment situation, as well as the relative value of every investment security, is subject to constant change. An investment which is good today is not good tomorrow; high-grade, low interest bearing bonds should be purchased today, but sold tomorrow. This is not speculation, as the rapid turning over of securities will appear to be to some people, but merely "hedging" in accordance with an incessantly and actively changing economic environment. This matter should be emphasized. Whether or not the relationship between the industrial cycle and investment values outlined in this study is accepted as a matter of economic theory, it is a matter of great practical moment to the individual investor to realize that no security remains long in the same relative position. Not only is the credit of individual corporations and municipalities constantly changing, but the whole economic background, against which all investment values are reflected, is subject to change. The conservative trustee or trust department of a bank or an elderly maiden lady, joint heirs to the same fund of investment wisdom, may acquire an eminently respectable non-taxable preferred stock with a long record of regular dividends. The proper time to acquire such a security is during the upper stage of the cycle, because pure interest rates are then high, and, because of the good repute of the security, the changes in the cycle have little effect on the public's estimate of its risk. But, in spite of its good repute, this security should be sold toward the bottom of the next depression.

These conclusions also have a direct bearing upon the bond buying policy of banks and trust companies. That those institutions are proverbially poor bond buyers has been noted many times and the reason is not far to seek. The primary purpose of a bank is to serve its customers, to sell credit to those who want it and are entitled to it. Obviously, the greatest demand for credit by a bank's customers, a demand far exceeding the relative increase in deposits, will be during the up-swing of the pendulum and at the top. At this time high-grade bonds are at their lowest quotations. On the other hand, the bank is likely to have investable funds, far above the needs of its customers, at the bottom of the cycle. Its temptation is, therefore, to invest a portion of this surplus in bonds. But at this particular point of the cycle high-grade bonds are at their highest quotation. Banks of deposit are, therefore, in the unfortunate position of having no free funds to invest when high-grade bonds should be purchased, but plenty of funds at the time when they should not be purchased.

The social and general economic significance of the practical application of these principles is at once apparent. By the wide-spread sale during a depression and at a high level of market price, of old, well-seasoned railroad and municipal bonds of high repute and the purchase of common stocks, capital would be available for new construction by corporations at the very time when, owing to the wide-spread hesitancy and pessimism, corporate enterprise experiences the greatest difficulty in securing needed new capital. This is the very time when corporations should make permanent improvements; wages are down, unemployment is large and the prices of raw materials and semi-fabricated products are relatively at their lowest ebb. On the other hand, the wide-spread sale of industrial common stock on the upper levels of the cycle would supply just the inhibition needed to force corporation directors to put on the brakes before the coast down hill. Declining values of their shares would retard the further investment of new capital and make expansion increasingly difficult, so that the approaching break in prices would be less injurious to the corporations themselves and to the general public. In other words, the sale of seasoned bonds and the purchase of common stocks at the bottom of the cycle, and the sale of common stocks and the purchase of high-grade bonds at the top of the cycle, would tend to level off the cycle itself and protect the community from abrupt fluctuations in business prosperity. As in all other economic activities, action based on forethought which benefits the individual likewise benefits society. This is a simple truth, no less true in what appears to be the selfish field of investment than in other fields of economic activity.

CHAPTER IV

PERMANENT INVESTMENT POLICY

Causes of Changes in Investment Values.—The changes in investment values, due primarily to the industrial cycle, arise through the periodic maladjustments in the demand and supply of capital. Through a period of years these secular trends, in industry and national prosperity, become apparent. Aside from the purchase and sale of investment securities, in accord with the fluctuations of the industrial cycle, there are other and perhaps more permanently important problems arising through an understanding of these secular trends.

Permanent changes in the relative and absolute value of investment securities may be conveniently classified under various heads, according to the extent of effect and the causes of these changes. Most individual and limited in effect are the changes in the credit—based on specific conditions—of the individual corporation or state issuing the securities. There are next changes which influence the demand and supply of the commodity produced by the industry as a whole and which affect the earning capacity of all the corporations within the industry. There are causes which affect the purchasing power of money and therefore affect the value of one particular investment with reference to others. Finally, there are great social and economic changes which may affect the relative share of the proceeds of industry which capital and the entrepreneur may, individually and collectively, claim out of the proceeds of industry. This chapter is devoted to a discussion of these causes, so far as they may be said to affect the principles governing investment.

The Individual Corporation.—To the uncritical business or professional man, the school teacher and the lawyer-trustee, the character of the individual security and the influences affecting it are of such supreme concern that more fundamental factors are often completely neglected. Yet the conditions affecting the individual corporation, which render its particular securities desirable or undesirable for investment, are comparatively simple. The possible investor has to be assured that the managers of the enterprise are honest according to the obvious canons of old-fashioned honesty. They should be endowed with an entrepreneur ability equal to at least the average of the industry. If the enterprise operates a national monopoly like a mine or a timber limit, one should be assured that the costs of production are at least as low as the average of the competitors; if it operates a legal monopoly, like a gas company or a street railway, one should be assured that the public demand establishes a price level above the cost of production. Beyond these few platitudes there is nothing more than ordinary common sense to guide the investor in the selection of the security of a particular enterprise within an industry.

Conditions Affecting Trend of Industry.—More fundamental, however, than the selection of the individual corporation is the selection of the industry. It is of the utmost social importance that capital should flow where needed. It is also of great individual importance. The investor should place his capital in an industry which shows the vitality of continued or increasing economic profitableness based on social usefulness; he should eschew those industries which have apparently outgrown their serviceability. Capital waiting for investment is mobile. It flows where the attraction is strongest, and the attraction is measured by a public demand for the product of the industry that is constantly requiring an increased supply; and, contrariwise, capital is repelled away from an industry in which the supply of its product exceeds the public demand at a remunerative price. Obviously, the adjustments of fundamental industries to the shifts in public demand occur slowly and with much grinding and wrenching of the cogs. Nevertheless, the investor can anticipate or at least work in agreement with these adjustments by control over capital. It is a fundamental dictum of economics, which business men and social theorists are apt to forget, that the cost of the production of a commodity does not at any one time determine its market price. This fundamental principle is invariable except in special cases such as monopolies where the cost, if known, is an impregnable barrier beneath which the price of the commodity cannot fall, and publicly regulated industries where a government fiat garbles the decisive, albeit clanging, working of economic laws. True, in the long run the prevailing market price either retards or stimulates the production of goods, according as it is below or above the cost of production. But in the short run, at a given time, the price a manufacturer can get for goods, or a public utility for its service, is determined solely by the demand and the supply of the goods or the service. Accordingly, if the demand for goods or service remains such that the market price is consistently above the cost of production, capital invested in the industry will receive a liberal return. If it is consistently below the cost, capital will be insufficiently paid and the capital already unalterably fixed in the industry will depreciate in value. The course of industries, like the course of empires, is determined by social and economic motives.

All this means just one thing. The investor must pick the industries which produce goods or services so much demanded by the contemporary social order that their market price remains consistently above the cost of production. For example, he should pick the manufacture of electrical equipment rather than the quarrying of granite, the service of electric power rather than the service of electric railway transportation.[a] This is not a discussion of the eternal verities of economic value, nor of the ethical or social values of different kinds of commodities—of the movie or malting industry in contrast to the textbook or packing industry. It is merely a question of social demand in its crudeness and blindness.

---

[a] A casual observation would indicate that capital invested in the electric street-railway industry any time during the last quarter century would have represented a bad investment in the sense in which the expression is used here and in the ordinary acceptance of the term. Two graduating students of the Harvard Business School, W. H. Boireau and E. H. Crabbe, in a

Rise and Fall of Industries and Corporations.—A similar principle may be applied to corporations within an industry, but among corporations the rough outlines of a life cycle are more clearly discernible. Thirty-odd years ago the geologists, studying the geographical forms of the earth's crusts, evolved the idea of the geographical life cycle. This was a succession of stages from youth maturing through old age to final decay through which all land forms passed. The analogy between human life and the stages in the history of industries and individual corporations is just as close and illuminating as this analogy to the earth's forms, and the student of a science of investment might well adopt this nomenclature of the geologist.

Industries and corporations have their birth and youth. They suffer from the crudities and struggles incident to rapid growth and economic adjustment. Capital is difficult to obtain from the outside, but what is invested in a youthful industry or youthful corporation—through confidence in the future rather than results of the past—yields large returns. But such an investment to be more than a mere gamble must be made with

---

statistical thesis covering several general types of industries compared the investment results of a large group, altogether 340, of common and preferred stocks chosen among dividend-paying securities. The list was a random selection of dividend-paying stocks, as of January 1, 1900, and they traced this group, by exhaustive computation of dividend yields and market values, down to January 1, 1923. Although the many reorganizations in the street-railway industry interfered considerably with the "smoothness" of the statistics in this particular part of the investigation, nevertheless this part of the conclusion is significant. The investment in no one great industry was "the best investment for all the periods (from 1900 to 1923)—street-railway stocks were the worst investment for every period. Since, as suggested in the discussion of the compilation of the street-railway lists, the stocks used in these lists were better than the average street-railway stock, it may be concluded that an investment in any other of the groups analyzed would have been on the average more profitable than an investment in street-railway stocks." This conclusion, from the statistics of investment, is borne out by the statistics of earnings of public utility industries represented by the Special Census of 1917.

a broad knowledge of the risks involved and a prophetic knowledge of economic values. Such investments are never recommended by the trustee-lawyer or the country banker.

Later industries and corporations emerge into their span or epoch of maturity. They become acknowledged. They compete on a reasonable basis with other established industries and established corporations for banking credit and investment funds. Consequently the returns on capital invested in such industries or such corporations yield a fair rate of interest, with a reasonable though not excessive compensation for risk. Were it possible to forecast the length of time, which varies greatly, that an industry or corporation will remain in this maturity stage, investment of capital here would be sound and relatively permanent, neither increasing nor decreasing so long as the industry or corporation remained in this "balanced" condition.

And then finally there is the old-age stage. The industry, and particularly the corporation, lives on, buoyed up for a considerable time by its past accomplishments. If we are considering a corporation in the old-age stage, it will show large capital assets, large bookkeeping surplus, but relatively low current earnings. Nevertheless, its stock will be eagerly bought by the lawyer-trustee because of its long dividend record. Those who by training and cast of mind are wont to forecast the future entirely by the weight of accumulated precedent will regard the old-age industry or corporation, even on the brink of final dissolution, as thoroughly sound, eminently "conservative." At the final break of the New Haven bubble, its stock was held by upwards of 7,000 trustees, a large proportion of them lawyers, extremely conservative in their investment ideas. The wonted partiality of New England lawyers, New England trust companies, and conservative trustees for the old and the tried, may be an ample, but not altogether reassuring explanation of why the great majority of their trust accounts, during the last quarter of a century, so liberally justify the investment in New England railroads and New England cotton mills.

Purchasing Power of Money and Investments.—In an earlier paragraph it was suggested that after the conditions affecting the individual enterprise and the industry in which the enterprise operated the next set of conditions of consequence are those affecting the purchasing power of money and therefore the relative value of one type of investment security with reference to another. This is a matter of profound importance, and takes us at once into the whole supporting background of economic thought upon which any broad theory of investments must rest. Much of the remainder of this chapter is devoted to it.

An investor, whatsoever the type of securities he purchases, plans to preserve his principal intact and to receive, in addition, an annual payment in the form of interest, dividends or enhancement of his principal. As an investor these two things alone concern him. But a moment's reflection would indicate that the idea of the preservation of the principal intact requires a standard of continuing value. It requires, in fact, a permanent standard that should enable the investor to know whether his principal has appreciated, depreciated, or remained the same through long periods of time.

One of the many indications that investment, as a science, is still in its infancy is the fact that so much attention is devoted to the obvious and superficial, the external facts, concerning different securities, and that so little attention is given to the economic theory of investment. Most so-called investors—and this includes the lawyer-trustee and trust company official—are like children studying navigation by classifying sailing vessels and ignoring mathematics, or like bridge builders computing stresses without the calculus. For it is seemingly elementary that a judgment of the value of an investment or a comparison of one investment with another can be made only if the value of the present can be compared with that of the future, and the investor made aware of any appreciation or depreciation of principal before he attempts to estimate the yield of his investment.

The purchase of an investment at any time is the same as the sale of purchasing power. For, when the investor pays over one hundred dollars for either a share of stock quoted on the exchange or a small bond he has delivered to the corporation the means to acquire a hundred dollars of property and has deprived himself of that power. However, in depriving himself now of this purchasing power he has assured himself to his own satisfaction that this purchasing power will come back to him, undiminished at another time. True, this assumption may be based on the corporation's promise to pay the bond when it is due or the confidence that the shares of stock may be sold on a market, but there is confidence of at least a maintenance of the value—which was paid for the investment.

Delusions Regarding Payment in Gold.—The assumption that the preservation of the principal of an investment is attained by the maintenance of either an equivalent amount of gold or an equivalent amount of some national unit of exchange is one of those delusions upon which a vast superstructure of investment sophistry is reared. The idea, current perhaps from the Italian commerce of the Renaissance or even from the Phoenician traders of the Eastern Mediterranean that gold may be used as a fundamental measure of economic value over a limited space of time is extended by the investor to imply that it likewise can be used over an unlimited space of time. Because gold can be used to compare the exchange value of hogs and diamonds, it is assumed that it can be used to compare the value of what the investor pays at one time with what he receives at another. But there is no evidence upon which to rest this assumption except the childish idea that the physical weight and bulk of gold does not change from year to year or from age to age. The investor, however, is no more concerned with the continued sameness of the weight and bulk of gold than he is with the area of his bond or certificate or the weight of the paper it is printed upon. His concern is with the economic and not the physical characteristics of his gold; he wants the maintenance of the economic equivalent of his principal, not the physical equivalent of gold. The return to him of an equal weight and bulk of gold at some future time has no significance, for the simple reason that the gold itself means nothing beyond its purchasing power. In brief, he wants the return of his principal as an equivalent purchasing power and not as a physical thing.

Speculation in Purchasing Power.—This brings us at once face to face with one of the most significant and far-reaching questions of investment theory—namely, can the purchasing power of capital be better maintained, through the medium of promises to pay a physical equivalent of gold or through mere participations in the earning power of industry? Phrased more baldly, are investments in bonds or common stock more likely to preserve the capital fund unimpaired through long periods of time?

For centuries the writers of the textbooks on political economy have laid down as elementary the postulate that the value of gold, or any other accepted medium of exchange is in the value of the commodities for which it may be exchanged. So that the investor in a bond actually delivers to the borrower present commodities valued according to the current money or gold equivalent and receives from the borrower a promise to pay back the same amount of money or gold at a later date. There is nothing in the contract to imply that the purchasing power of the gold shall be the same, the contract merely calls for the return of the same weight and bulk of gold. It is a contract calling for the return of a physical equivalent and not an economic equivalent.

The purchasing power of the gold returned to the lender at the time the bond falls due is not, except by the merest accident, the same as the purchasing power of the gold loaned to the borrower. During a period of rising prices the lender or investor receives back less purchasing power than he loaned, and the principal of his investment depreciates notwithstanding the equality of the physical quantity of gold; during the period of falling prices the lender or investor receives back, conversely, greater purchasing power. An investor in bonds is, therefore, speculating in the purchasing power of gold, deriving a loss through rising prices and a gain through falling prices. He will incur no speculative profit or loss only under the unusual circumstance when the general price level is the same when the bond is bought and sold.

Common Stocks as Investments During Periods of Rising Prices.—The obvious conclusion, pointed out many times, is that bonds should be carried as investments only during long sustained periods of falling prices. But the query naturally arises in regard to the appropriate investment during periods of rising prices. As we have been living, during this quarter century, in a period of rising prices, the question has considerable practical moment. The answer is common stocks.

A share of common stock is not the evidence of a loan, it is the evidence of ownership of the aggregate of producers' goods and current assets which constitutes the going business of the corporation. During a period of rising prices every item of this aggregate rises in gold value for the simple reason that the replacement cost, in gold, has risen. Some types of producers' goods have risen more rapidly than others, others even have fallen,[b] but the average corresponds quite closely, probably, to the general price level. This is almost certainly true if the investor owns part interest in many kinds of producers' goods through the ownership of a wide distribution of the common stocks of corporations engaged in many different industries.

This rise in the price-value of the producers' goods and current assets represented by the shares of common stock will probably be reflected in greater earning power expressed in gold. This conclusion seems to be inevitable from the following line of reasoning. Greater earning power behind the shares of stock results from the ability of the corporation to sell commodities already produced at a higher price, or to produce goods at a lower price than its competitors. During a period of rising prices the corporation will be able to sell each successive lot of merchandise at a higher price, due to the fact that the merchandise was produced or bought on one price level and sold on a higher one. During rising prices a corporation's permanent producers' goods or fixed assets, having been purchased on a preceding lower price level, will compete favorably with similar assets of competitors. This would apply particularly to land and buildings, and would not apply in the case of machinery with rapid obsolescence. On the whole, however, the corporation having producers' goods acquired on a lower price level would be able to obtain a wider margin of profit, other things being equal, than the competitor corporation with its fixed assets acquired at a higher price level. In either case, therefore, in both production and distribution the corporation would be deriving an increasing margin of profit during a rising level of general prices. This would be shown objectively either as increasing dividends or as increasing surplus—or a combination of the two. Whatever the dividend policy followed, therefore, by the managers of the corporation this increase would be evidenced to the investor in the enhancement of the selling price or gold equivalent of the shares.

---

[b] Like street cars and street car equipment during the rapid general rise of prices from 1900 to 1925.

Common Stocks in Periods of Falling Prices.—If this reasoning is true, it is apparent that common shares will preserve the purchasing power of capital during a period of rising prices better than bonds. In fact, were it possible to obtain a very wide distribution of common shares among a great variety of enterprises engaged in every type of industry, the rise in the price-value of the common shares would approximate exactly the general rise in prices. But is the converse true, that during a period of falling prices, while the bondholder would gain in exact correspondence to the fall, the holder of common stocks would lose correspondingly?

The answer to this question is not self-evident. During a period of falling prices the well-managed corporation will be contracting its activities. While it must suffer a loss on each sale of merchandise due to the fall of prices between the production or distribution of its merchandise and their sale to the consumer it can control the volume of its tradings, therefore its losses. It can, in company with others engaged in the same industry, so reduce its tradings that the temporary operation of the law of demand and supply may so increase the market price that it sustains no loss on its successive tradings. This can be certainly accomplished if the corporation is engaged in an industry where the nature of its current assets is such that only a short period need transpire between the purchase or production and the ultimate sale of the current assets. Unfortunately, it cannot be accomplished if the corporation operates in an industry of the reverse kind—like leather or paper—where a long period must pass between the purchase of the raw material and the sale of the finished product. But the investor need not purchase such common shares if he feels that a period of falling prices is at all probable.[b]

There are other considerations, too, which the common shareholder has on his side, even during periods of falling prices. During the last century and a half mechanical invention and the technical improvements in the arts have gone forward during falling prices as well as rising prices to such an extent that all types of enterprises have profited by constantly cheapened methods of production. The benefit of all the labor-saving devices and more efficient methods of production falls in the first instance upon the corporation able to take advantage of them. The development of high power locomotives, while in the end resulting in lower costs of transportation to the consumer, resulted immediately in higher profits to the railroads. Temporarily, at least, every advance in the mechanical arts that cheapens the cost of producing commodities benefits the entrepreneur; it widens his margin of profit. This principle holds true whatsoever the trend of general prices.

---

[b] Van Strum, in the course of elaborate statistical studies, traced the course of the market prices of 10 common stocks during the period of falling prices from 1873 to 1897. There was a slight appreciation in money value; obviously there was a greater appreciation in the purchasing power of this money value. Clearly the corporations, as a group, were able to so conduct their several businesses that the net value of their shares resisted the general fall of commodity prices. Increase of national wealth and the advance of the arts are always on the side of the entrepreneur.

The apparently large appreciation of bonds during a period of falling prices is seriously affected by another consideration, the detailed discussion of which is beyond the present study. It is the simple fact that there are always a considerable number of failures during such a period, and if the failure strikes the enterprise having both bonds and stock, it is very unlikely that disaster overcomes the stock and not the bond. During long-continued periods of falling prices, municipalities and countries may default on their bonds, so that the bondholders who should get the full benefit of declining prices in the rise in value of his bonds, is defeated through the total extinction of the earning power of corporations or agricultural districts upon which bonds as well as stocks are dependent for their sustained income payments and therefore their value.

From these observations we are therefore led to this general conclusion. During a period of rising prices common stocks, rather than bonds, can be relied upon to preserve intact the purchasing power of the investor's capital. During such times his fund will certainly increase in gold value if invested in common shares. During falling prices the investor certainly gains through holding bonds, both in their money equivalent and in the purchasing power of this equivalent. He may, however, especially if care is exercised, bring about at least a slight increase in the money equivalent of his common stocks, and if this is accomplished there will be a more than proportionate increase in the purchasing power of the common stock values. At all events the investor does not lose by holding common shares during a declining price level as much as he loses by holding bonds through a period of rising prices. Greater certainty, therefore, if the trend of prices cannot be foretold, is to be obtained from common shares rather than bonds.

Empirical Tests of Theory.—The presumption that common shares which public feeling, reinforced by bankers and "conservative" bond houses, has long regarded as the most speculative of investments are in truth more stable than bonds and afford in the long run a better medium of investment is advanced with considerable caution. Yet there is some empirical evidence to support the theory, although the continuously rising prices during the last quarter century afford a background upon which the proposition is more easily proved from contemporary data than if we were dealing with a longer period including both falling as well as rising prices.

The most notable study of the kind was recently prepared by Smith,[1] whose investigation has properly received wide notice. Smith undertook to apply a series of empirical tests to random or arbitrary selections of well-known common stocks and so-called high-grade bonds of acknowledged investment strength. He observed the gain or loss to the investor of $10,000 invested in each group; and he employed twelve different tests covering arbitrary periods of time and embracing different lists of securities over different periods of time. During the course of eight of the tests general prices were rising and each test showed results conspicuously favorable to the investment in stocks. This was the result to be expected from the theoretical considerations already stated, but the extent to which stocks are favored over bonds is surprising. During the course of three of the tests general prices were falling. Two of these tests showed an advantage of stocks and one of bonds. In view of the steady fall in prices it is remarkable that any of the three tests should have shown an advantage of stocks over bonds. Such a result tends to prove empirically—

---

[1] Smith, Edgar L., Common Stock as Long Term Investments (1925). The results of this study were somewhat extended and subsequently were published by Macmillan Company.

as stated in an earlier paragraph—that a corporation is able to protect itself against falling prices to such an extent that the decline in earning power shall not be commensurate with the decline in general prices. The remaining test of the twelve covered a period first of falling and then of rising prices. It was conspicuously favorable to stocks.[c]

Stress, perhaps, should be laid on the gain in principal during the various periods under consideration, rather than the gain in income, for the simple reason that the gain in income is a kind of business profit resulting to the investor from an overpayment on his risk. This was explained in detail in a previous chapter. But the gain in capital values, reflected in an increase in market values, is to be attributed directly and specifically to a change in the purchasing power of the invested capital. Emphasis should be laid again in closing an account of this study upon the fact that the securities were selected by some rule-of-thumb method—largest corporations, or the like—and if entrepreneur judgment could have been exercised, the advantage in favor of stocks over bonds would have been even more conspicuous.[d]

---

[c] Smith's tests in summary form are of great interest.

	Period	Length	Rising or Falling Prices	Excess of Stock Income over Bond Income	Increase of Market Price of Stocks	Total Advantage of Stocks over Bonds
1	1901 to 1922....	22	Rising	$10,980	$ 5,420	$16,400
2	1901 to 1922....	22	Rising	8,289	953	9,242
3	1901 to 1922....	22	Rising	11,365	10,590	21,955
4	1880 to 1899....	20	Falling	3,328	8,654	11,982
5	1866 to 1885....	20	Falling	4,409	− 1,442	2,967
6	1866 to 1885....	20	Falling	1,014	− 2,026	− 1,012
7	1892 to 1911....	20	Falling Rising	4,349	7,375	11,724
8[2]	1906 to 1922....	17	Rising	2,514	4,137	6,651
8a[3]	1906 to 1922....	17	Rising	4,674	264	4,938
9[4]	1901 to 1922....	22	Rising	7,632	6,103	13,735
10[5]	1901 to 1922....	22	Rising	4,286	− 956	3,330
11[6]	1901 to 1922....	22	Rising	5,150	11,990	17,140

[2] Largest companies in an industry.
[3] Largest companies in an industry paying dividends at time of purchase.
[4] Railroads with largest stock issues.
[5] Railroads with largest stock issues paying dividends.
[6] Railroads with largest stock issues paying no dividends.

[d] A very real objection can be advanced against Smith's study to the effect that in seeking to be "fair" to bonds he deviated from a truly scientific course. Instead of trying to seek a purely objective standard his whole study is affected by the desire to avoid criticism by always throwing

Other attempts have been made to extend further the studies of Smith by using additional tests. Pearson[7] employed seven different tests, representing different classes of common stocks, and covering the period from January, 1901 to January, 1923. "In each test it is assumed that an investor with $10,000 has invested in January, 1901, $1,000 in each of ten stocks. He receives each year the income from these stocks . . . and the proceeds are . . . devoted in the following January to the purchase of further stocks, in rough rotation, from the list already held." The results further substantiate the conclusions of Smith, although the fact that all the groups were traced through a period of rising prices would have indicated a general result which could probably have been anticipated. On the other hand, the results to be obtained from the use of many different arbitrarily selected groups, traced through a considerable period of time, are least illuminating.[e]

It is to be understood that the number and kinds of tests might be indefinitely multiplied, but it is doubtful whether the final results would be different. The important thing is that

---

the doubt in favor of bonds and against stocks. He assumed, for example, that there would be no losses of principal in his bonds—a condition which no arbitrary selection could have avoided—while he gave full effect to the losses due to failure of the stocks. Possibly he might contend that even if all the favors were on the side of bonds, he could nevertheless prove the superiority of stocks. And so it appeared. The quantitative value of his study, however, would have been greater if he had used the same critical analysis with respect to the selection of his bonds that he did with respect to his stocks.

[e] The following, in detail, shows the results of Pearson's study (all from 1901 to 1923—22 years):

Arbitrary Method of Selection	Excess of Stock Income over 4%, Assumed Bond Income	Increase of Market Price of Stock	Total Gain of Stocks over 4% Income
1. Low dividend industrials[8]	3,148	3,758	6,906
2. Most recent listings prior to 1901	6,955	17,502	24,457
3. Low, non-dividend railroads	− 7,147	− 72	− 7,219
4. Highest market value railroads	3,001	645	4,546
5. Lowest market value industrials	− 4,675	21,882	17,207
6. Highest market value industrials	8,321	14,558	22,879
7. Insurance stocks	9,965	19,674	29,639

---

[7] Pearson, H. S., Investing in Common Stocks During a Period of Rising Prices, Harvard Graduate School of Business Administration (1926).

[8] In contrast to Smith's group 1, which embraced high dividend industrials.

they almost uniformly tend to confirm the conclusions based on a theoretical analysis.[f]

---

[f] Recently another set of tests has been prepared bearing upon the investment of common stocks and bonds during rising prices, with special reference to the type of common stock which shows the maximum return to the investor.[9] It proposed a further check on Smith's conclusions using a different method of arbitrary selection. Four groups of common stocks were selected according to a method of selection which, the investigator believed, approximated the course followed by the average investor. "The tests were made over the years from 1910 to 1925. . . . It was decided to invest $1,000 each year for ten years, together with any interest that may have accrued from the investments during the preceding year, and thereafter only the interest. This money was invested the first day of each year that the New York Stock Exchange was open in the issue that had the largest volume of transactions during January of that year."[10] All the groups indicated an income in excess of that recorded on high-grade bonds. To simplify statistical methods, the attention was directed to appreciation and depreciation. Briefly, the results were as follows:

All appreciation based on an investment of $10,000, January 1, 1910.

INDUSTRIALS:

1. Mere random selection of industrials. Appreciation $9,028 (original investment having grown by reinvestment of dividends to $21,547—making a net appreciation of 41.9 per cent, so that the original investment of $10,000 had grown to $30,575).
2. Random selection of large industrials, the only limitation being that no two should operate in the same industry. Appreciation during period $12,648 (the original investment having grown by reinvestment of dividends to $19,629—making a net appreciation of 64.9 per cent—so that the original $10,000 had grown to $32,277).
3. Random selection of large industrials, limited as follows:
   (1) No two taken from the same industry, and (2) Each to be paying a dividend at the time of selection (1910). Depreciation $1,526 (the original investment having grown by reinvestment of dividends to $20,745, subtracting the depreciation of 7.3 per cent, the original $10,000 had grown to $19,219).

PUBLIC UTILITIES:

1. Mere random selection of public utilities. Appreciation $9,603 (the original investment having grown by reinvestment of dividends to $14,876—making a net appreciation of 64.6 per cent—so that the original investment of $10,000 had grown to $24,479).
2. Random selection among public utilities which had paid a dividend in the preceding year. Appreciation $6,361 (the original investment having grown by reinvestment of dividends to $18,089—making a net appreciation of 35.6 per cent—so that the original investment of $10,000 had grown to $24,450).
3. Random selection among dividend paying public utilities, omitting street railways. Appreciation $8,092 (the original investment having grown by reinvestment of dividends to $18,149—making a net appreciation of 44.6 per cent—so that the original investment of $10,000 had grown to $26,241).

---

[9] Shore, T. S., Common Stocks as a Long Term Investment, Harvard Graduate School of Business Administration (1926).

[10] *Op. cit.* The fourth or bank stock group could not be selected from Stock Exchange listings.

A recently published study by Van Strum lays stress upon the effect of bond and stock investment not only on money values but on the purchasing power of these values.[11] Van

---

RAILROADS:

1. Mere random selection of railroads. Appreciation $13,852 (the original investment having grown by reinvestment of dividends to $12,750—making a net appreciation of 108 per cent—so that the original investment of $10,000 had grown to $26,602).
2. Random selection of railroads which had paid dividends during the preceding year. Appreciation $1,398 (the original investment having grown by reinvestment of dividends to $16,028—making a net appreciation of 8.7 per cent—so that the original investment of $10,000 had grown to $17,426).

NEW YORK BANK STOCKS:

Random selection of the ten best known. Appreciation $3,987 (the original investment having grown by reinvestment of dividends to $21,797—making a net appreciation of 18.3 per cent—so that the original investment of $10,000 had grown to $25,784).

The rather interesting results may be briefly summarized in the following table:

	Original Investment	Reinvestment from Earnings	Appreciation at End of Period	Total Value
Industrials				
1	$10,000	$11,547	$ 9,028	$30,575
2	10,000	9,629	12,648	32,277
3	10,000	10,745	− 1,526	19,219
Public Utilities				
1	10,000	4,876	9,603	24,479
2	10,000	8,089	6,361	24,450
3	10,000	8,149	8,092	26,241
Railroads				
1	10,000	2,750	13,852	26,602
2	10,000	6,028	1,398	17,426
Bank Stocks	10,000	11,797	3,987	25,784

Some interesting conclusions may be drawn from the results of this very careful study. In the first place the selection of investments would seem to make very much less difference than usually supposed, provided some consistent policy is followed. Combining both the accretions from reinvestments and appreciation the original fund of $10,000 has grown from a minimum of $17,500 to a maximum of $32,500, the former if invested in high-grade railroad stock and the latter in well-diversified industrials. The average of all these funds was $24,150 and the average deviation only $3,700.

Another thing to be observed is the close similarity of certain results. For example, the exclusion of street railroads, admittedly the most unfortunate type of investment during the last fifteen years, had only slight effect upon the results. Also, the greater appreciation on the mere random selection of public utilities almost exactly counterbalanced the greater dividend, but lower appreciation, of the dividend paying group. The whole study would seem to indicate that the investor in common shares can count on the net result being not very different, whether he takes his profit in dividends or in the appreciation of principal or a combination of both.

---

[11] Van Strum, K. S. "Investing in Purchasing Power," Barron's, 1925. The study takes into account the increases due to additions of income as well as the depreciation or appreciation of principal. In the summary tables given here merely the changes in value of the principal—money value and purchasing power—are given.

Strum's study, as did the others already cited, used a distinctly arbitrary method of selecting his stocks—such, for example, as the stocks of corporations having the largest capitalization. And, when the occasion required it, he threw the advantage of conscious selection on the side of the bonds.[12] He constructs 18 different comparisons using three different periods. During the first set of comparisons from 1873 to 1897, general prices fell continuously. In two of the four comparisons during this period the appreciation of stocks was greater than that of bonds, and as prices were falling during the period this money value appreciation was accentuated in purchasing power. By consciously arranging the selections of units in favor of bonds, the other two cases showed a greater appreciation for bonds than for stocks. But a careful study of the text showed that the managers of the larger corporations were able, through foresight, skill and the industrial progress of the country, to protect fully both the earning power and the market value of the common stocks of their corporations during a long protracted period of falling prices.[g] The second period from 1883 to 1906 was chosen because the general price level was approx-

---

[g] All four comparisons covered the period of falling prices from 1873 to 1897. (The second comparison covered the period from 1878 to 1897.) All used "as an arbitrary basis for selecting the stocks to be purchased, the five railroads and the five industrials having the largest amount of common stock outstanding in June, 1893," page 30. All comparisons on the basis of $100 original purchase; or phrased differently, the advantages or disadvantages are on the basis of percentum of the invested fund's original cost.

Comparison Number	Basis of Bond Selection	Money Advantage of Stocks	Purchasing Power Advantage of Stocks
1	Bonds yielding maximum interest and no losses of principal	16.24	31.70
2 (Starting with 1878)	Same	37.44	81.0
3	Carefully selected long-term bonds	– 8.25	– 16.04
		(Advantage to bonds)	
4	Stocks purchased at yearly intervals (largest capitalization outstanding at time of purchase)	– 4.80	....
		(Advantage to bonds)	

---

[12] For example, he states, "it is the purpose of these studies in every possible instance, to make out the most favorable possible case in favor of bonds," page 32. Such a "loading of the dice" in favor of one of the elements of his comparison may add to the propaganda value of his results but it does not strengthen their scientific value. As with Smith's study, Van Strum believed that his case was sufficiently strong even though the odds were, apparently, in favor of bonds.

imately the same at the end as at the beginning.[13] In all the comparisons the appreciation was greater for stocks than bonds.[h] The other 10 comparisons covered periods embraced in the last thirty years of rising prices. Although they show many interesting results they merely emphasize the advantage of stocks over bonds, both in appreciation of money value and in the maintenance of the purchasing power of the original funds.[14] This result corroborates the conclusions already reached by other students of the general subject.

In spite of the sound basis of common stock investment it appears that the whole financial mechanism of the country is directed toward bond investment rather than intelligent investment in the common stocks of the larger, well-known semi-public corporations. Even the nationally circulated magazines carry a preponderating proportion of financial advertising space devoted to extolling the excellence of bonds.[i] Unfortunately, too, the kind of bonds most generally advertised are, probably, the least desirable—small, little-known real estate issues.

Investment Values as Affected by Political, Economic or Social Changes.—A discussion of the fourth group of con-

---

[h] The methods of selection were the same.

Comparison Number	Basis of Bond Selection	Money Advantage of Stocks	Purchase Power Advantage of Stocks
5	Bonds yielding maximum interest and no losses of principal	49.74	51.70
6 (1884 to 1906)	Same	91.16	91.16
7	Carefully selected long-term bonds	28.44	29.56
8	Stocks purchased at yearly intervals (largest capitalization outstanding at time of purchase)	29.62	....

[i] The author counted the number of financial advertisements in two of the recent (spring 1926) high-grade monthly magazines. Both made a special feature of financial advertising and both carried "Investors' Service" departments in which wisdom was freely dispensed. There were 57 advertisements. Two were from one dealer in common stocks; two were from a public utility holding company; two were from stock exchange brokers; fifty-one were the advertisements of bonds, and of these forty-four were the offerings of real estate bonds—possibly the poorest type of bond.

---

[13] The level of 1884 would have been almost the same as that of 1906, using Dun's index. But 1883 was less advantageous to stocks and therefore chosen.

[14] As the methods of selecting the units are complicated, and the results point to the one conclusion already described these comparisons are not given here. A detailed examination of them is available through the published book.

ditions that might affect investment values, those associated with great political, economic or social changes, must be vague indeed, because of the great difficulty in forecasting what these changes might be. Yet it is of importance to note that all such changes which would affect unfavorably the values of common stocks would also affect bonds unfavorably. If the earning power of a corporation should be extinguished by socialistic legislation or political revolution, by war or a great public disaster, the interest charges for the service of the bond would be cut off quite as much as the earnings available to the common shareholders. No socialistic plan is likely to cut off the earnings of an enterprise at the nice point which will allow it to meet exactly the bond interest and leave no earnings to the common stock. No political expedient is likely to destroy the entrepreneur, but leave the capitalist intact. In fact, socialism may entirely destroy the objective capital of a private enterprise, thereby confiscating the material goods upon which the bondholder relies for the payment of his loan, but it cannot destroy the immediate usefulness and the future necessity of the organization and operation of an enterprise devoted to the production of services or commodities useful or necessary to our present stage of industrial development. It is this organization which is represented by common shares.

One great danger, however, affects bondholders rather than stockholders. It is the depreciation of the currency, either through war or political machination. It has been said that three great evils may befall a state—war, famine and the depreciation of the currency; the last is the worst because its effects are so subtle and far-reaching. If a bond is not payable in gold, the bondholders will be forced to accept the par value in the depreciated medium of exchange; if it is payable in gold, the gold he receives will be exchangeable for commodities on the price level established by the depreciated currency. On the other hand, the depreciation of the currency will give a hectic stimulus to business activity and this, inevitably, will increase the earning power of common shares owning the actual property of the business enterprise. If the depreciation goes far enough, as it did in Germany and Austria, the common shareholder will be able to pay off creditor bondholders in worthless paper and take over as his own all the assets of the corporation. In the great economic catastrophe of a depreciated currency the bondholders of states and municipalities suffer quite as much as the bondholders of private corporate enterprises.

Word of Caution.—This whole discussion of some of the underlying principles of permanent investment should not be closed without one word of caution. The observations refer to investment as a science, not as the placement of savings for safe-guarding. The application of the principles requires a fund of considerable size, in which the law of averages can have scope for operation. It, furthermore, requires time and the working out of narrow margins over long periods. No matter how secure a single investment may appear to be, circumstances and conditions may affect it, so that what at one time appears to be a true profit, or margin above the necessary risks disappears altogether at a later time. Investment is a science of groups rather than individuals. And the groups, as well as the individuals comprising them, are subject to increasing change; they exist only in a Heraclitean world.

Furthermore, the conclusion might possibly be drawn from the foregoing reasoning, and the statistical studies cited, that investments with a considerable risk premium were under all circumstances to be preferred to well-known, "sound" securities having a low yield. This is not so. Throughout this study we have been considering investment as a science to be conducted with the intention of devoting to it the study, care, attention to detail, and devotion that is required to make any vocation a success; in other words, we are considering the administration of the investment of funds with the explicit purpose of obtaining not only pure interest and such premiums as will balance the losses but also a positive business profit as well.

These principles, however, apply only to investment on a large scale with this explicit purpose; they do not apply to the investment of small personal funds. Especially do they not apply to the business or professional man who saves a few hundred or a few thousand dollars a year. The possible investment profit resulting from the application of these principles would be very small compared with the profit which such a business or professional man would obtain from the same time and study devoted to his own business or profession. This matter is very important, and I would not pass it over without further comment. Far wiser is it for a business or professional man to devote himself wholeheartedly to his business and invest the surplus in low-yield, negative-profit bonds in which the chance of individual loss of principal is very slight—liberty bonds, municipal bonds, and the underlying railway issues—than to devote such time and attention to the subject of investment as would warrant the expectation of a business profit in this field. It is to be regretted, we repeat, that we have not developed the investment trust in this country, so that the small saver can obtain easily broad distribution and administrative skill, and with it true business profit. Those which have been started can be usually traced to a single banking house seeking an additional market for its securities, or else to promoters bent on working out some special theory underlying the so-called law of averages.

INDEX

A

- Ability,
  - Business, success due to, 687
  - Entrepreneur, in traction industry, 1092
- Accountancy,
  - Administrative policy, basis of, 453
  - Definition, 453
  - Importance, 453
  - Postulates, 453
  - Presupposition, 453
  - Purpose, 454
- Accountants,
  - Traffic, reports of at time of railroad reorganization, 954
  - Work in promotion, 287
- Accounting,
  - Balance sheet, 454
  - Bond discount, 513
  - Capital, use of term, 5
  - Capital surplus account, 495
  - Confidence in, effect on dividend plan, 544
  - Cost of unprofitable improvements, 531
  - Dividends on stocks of other companies, 506
  - Income account, 454
  - Losses under guarantee, 510
  - Premium on stock, 492
  - Royalty charges, 511
  - Surplus,
    - banks, 485
    - industrial companies, 486
    - public utilities, 485
- Accounts Receivable, Valuation, 263
- Accumulated Dividends, Extinction of in industrial reorganizations, 1120
- Additions to Net Profits (See "Net Profits, Additions to")
- Adjustment Bonds (See "Bonds, Income")
- Adjustments,
  - Claims (See "Claims at Reorganization")
  - Conflicting interests (See "Conflicting Interests at Reorganization")
  - Discounts, 504
  - Net profits, determination of, 456, 457, 458
  - Revaluation, reserves arising through, 458
  - Wasting assets, 460
- Administrative Policy, Accountancy as basis of, 453
- Advertising,
  - Cost, estimating, 240
  - Effect on demand, 239
- After-Acquired Property Clause,
  - Closed mortgage bonds, 116, 119
  - Equipment obligations, 187
  - Evasion of, 117
  - Mortgages containing, 130
- Age of Claims, Effect upon priority, at reorganizations, 1012
- Agreement Supporting Bonds, 79
- Agricultural District Associations, 796
- Annuities, Irredeemable, 98
- Appointment of Receivers (See "Receivers")
- Appraisal (See "Valuation")
- Assessment at Reorganization,
  - Bondholders, railroad, 1020
  - Creditors, 1115
  - Payment, expediency of, 1032
  - Railroad, 1020
  - Railroad reorganization underwriting syndicates, assumption of, 1037
  - Stockholders,
    - average rate, 1022
    - determination of amount, 1022
    - fitting amount to capacity, 1026
    - important railroads, 1023
    - small railroads, 1030
- Assets,
  - Banks, net tangible, 485
  - Capital,
    - definition of, 6
    - sale above cost as source of surplus, 493
  - Deferred, unprofitable improvements as, 533
  - Dissipation of, prevention of for protection of preferred stockholders, 65
  - Fixed, as factor of going concern, 262
  - Lien on, 47
  - Net, as basis of stock dividends, 567
  - Preferred stocks, lien on, 47
    - quick,
    - as factor of going concern, 262
    - valuation, 263
  - Revaluation, reserves arising from, 458
  - Sale of, creation of surplus by, 493
  - Tangible, effect of value on financial plan, 296
  - Treasury, sale as source of new money, 1019

- ASSETS—*Continued*
  - Value of tangible, effect on financial plan, 296
  - Wasting (See "Wasting Assets")
- ASSOCIATION SHARES, 12
- ASSOCIATIONS,
  - District, 794-799
    - agricultural, 796
    - membership, 798
    - organizations of, 794
    - purposes of, 794
  - Manufacturers, 799
    - increased demand for products through, 800
    - protection against political attack, 801
  - Trade,
    - as stage in business organization, 793
    - organization, 799
    - purposes, 799
- ASSUMED BONDS, 144
  - Investment yield, 147
- ATCHISON, TOPEKA AND SANTA FÉ RAILWAY, Reorganization of 1894, 990, 992
- ATTORNEYS, Services of, at reorganization, 953
- AUDITORS, Services of at reorganization, 953
- AUTOMATIC TOOLS, Combinations of industries using, success of, 688
- AVARICE, Appeal in marketing low grade securities, 438
- AXIOMS OF FINANCE, 296

B

- "BABY BONDS," 82
- BALANCE OF CONTROL, Effect upon financial plans, 303
- BALANCE SHEET, Defined, 455
- BALANCED RETURN, LAW OF (See "Law of Balanced Return")
- BANK DISCOUNT,
  - Deduction from net profits, 506
  - Defined, 506
- BANKERS,
  - Commissions on sale of new securities, 842
  - Competition between, effect on marketing new securities, 842
  - Distributing,
    - promotion work of, 249, 410
    - advice given by, 422
    - buying department of, 410
    - economic usefulness of, 420
    - investigation by, 422
    - maintenance of market by, 424
    - operation of properties by, 425
    - profits in underwriting syndicates, 403
    - responsibility for financial plan, 295
    - retail, 410
- BANKERS—*Continued*
  - Distributing—*Continued*
    - sales methods, 412, 417
  - Industrial reorganizations, management of, by, 1111
  - Investment (See "Investment Bankers")
  - Sale of bonds by, in expansion, 836
  - Sale, bonds by banker in expansion, 836
  - Sale of securities to in expansion, 828-846
  - Sale, stock by bankers in expansion, 844
  - Sale of securities to in reorganization, 1110
  - Wholesale, 408
- BANKING,
  - Assets, net tangible, 485
  - Dividends, payment of, 488
  - Paid-in surplus, 487
  - Sale of stock at a premium, 489
  - Surplus, 485
    - investment of, 502
  - Voting trusts, 621
- BANKING CONNECTION,
  - Advantages of in sale of new securities, 836
- BANKING HOLDING COMPANIES, 781
- BANKRUPTCY (See "Failures," "Receivership")
- BANKS (See also "Savings Banks")
  - As source of capital, 814
  - Bond buying by, 1223
  - Capital stock, 10, 11, 12
  - Dividends on stocks of, expediency of declaring, 589
  - Improvements, unremunerative, 529
  - National, as investment banks, 282
- BILL OF COMPLAINT IN RECEIVERSHIP, 951
- BLOCK SALES OF SECURITIES, 351
- BOND GUARANTEE, VALUE OF, 151
- BONDHOLDERS,
  - Assessment, railroad reorganization, 1020
  - Claims, adjustment of, at reorganizations, 968
  - Industrial reorganizations, new money obtained from, 1113
  - Protection of rights in reorganization, 993
  - Voting privileges of, 104
- BOND HOUSES (See "Bankers, Distributing")
- BONDS (See also "Equipment Obligations," "Notes," "Stock")
  - Adjustment (See below under "Bonds, Income")
  - Advantages of stock over, in expansion, 834-836
  - Advantages over stock in expansion, 828-833
    - continuation of control, 832
    - economy in expense of distribution, 832
    - lower rate, 828
    - sale of large blocks, 832

Bonds—*Continued*
  Agreement supporting, 79
  As long-period promissory notes, 79
  Assumed, 144
    investment yield, 147
  "Baby," 82
  Bridge, 120
  Circulars, 418
  Classification of,
    methods, 112
    security (See "Bonds Secured by Credit," "Bonds Secured by Property")
  Closed issues, 86
    advantages, 93
  Closed mortgage, after-acquired property clause, 116, 119
  Collateral mortgage, 136
  Collateral trust, 127
    avoidance of damage suits through, 130
    collateral deposited as security, 127, 131
    danger of misconstruction, 135
    evils of pyramiding on credit, 731
    public utility holding company's, 772
    purpose of issue, 128
    reasons for use, 128
    security for, 127, 131
    stock control by, 727
    subsidiaries, 130
    vs. collateral loans from banks, 136
  Common stock vs., 1235
  Consolidated mortgage, 123
  Contractual provisions governing increase of, 71
  Convertible,
    contract covering, 220
    double conversions, 227
    fractional warrants, 230
    historical uses, 218
    nature of, 175
    past sources of profit, 229
    ratio of conversion, 223
    restrictions on convertibility, 104
    securities into which converted, 222
    short-term notes, public service, into long-term bonds, 220
    time of convertibility, 229
  Corporations able to issue, 833
  Currency depreciation, effect on, 1244
  Debentures, 159-166
    definition, 86
    disadvantages, 163
    during down-swing of industrial cycle, 1216
    investment value, 159, 163
    privileged subscription, 856
    protection of, 163, 165
    public utilities, 163

Bonds—*Continued*
  Debentures—*Continued*
    public utility holding company's, 773
    railroad, 161
    railroad reorganization, 1070
    restrictions, 89
    significance of issue by railroad, 161
    uncertainty of security, 163
  Definition, 78
  Denomination, 82
  Description, 79
  Disadvantages of in expansion, (See "Stocks, Advantages over Bonds in Expansion")
  Discount,
    accounting for, 513
    adjustment, 514
  Distinguished from stock, 34
  Distribution of, as dividends, 562, 578
  Divisional, economic value of, 117
  Divisional in railroad reorganizations,
    classes of, 1051
    refunding, 1048
    treatment of, 1047
  Dock, 120
  Effect of falling prices on, 1236
  Effect of industrial cycle on market value of, 1210
  Enforced payment of, 106
  Equipment, 177
    conditions of issue, 192
  Equipment mortgage, 189, 192
  Extension and refunding, 124
  Extra long term, 97
  Ferry, 120
  First mortgage, 113, 115, 116, 120, 121, 126, 136, 1100
    after acquired property clause, 116, 119
    treatment of in railroad reorganizations, (See "Railroad Reorganizations")
    treatment in traction reorganization, 1100
    variety of, 115
  Form of, 78-111
    denominations, 82
  General mortgage, 123
  Guaranteed, 149
    intrinsic strength, 152
    strength of guaranteeing corporation, 153
    value of guarantee, 118, 151
    vs. guaranteed stock, 37
  Improvement and refunding, 124
  Income,
    average yield, 1197
    controversies over interest payment, 169, 170
    industrials, 168

Bonds—*Continued*
  Income—*Continued*
    interest provisions, 169
    nature of, 34, 166
    objectional use of, 170
    preference bonds, 167
    public utilities, 168
    purpose of issue, 176
    railroads, 168
    railroad reorganizations (See "Railroad Reorganizations")
  Interest,
    charges, 506
    deduction from net profit, 506
    income bonds, 169, 170
    payment of unearned, 922
    rate, 83
    reduction at reorganization, 1079
  Investment classes, 107
    "savings bank bonds," 108
    speculative class, 99
  Investment in, as speculation in purchasing power of gold, 1232
  Irredeemable annuities, 98
  Issue of,
    effect on corporation's credit, 835
    in promotion, 296
  Joint, 156
  Junior, treatment in traction reorganization, 1100
  Land grant, 120
  "Legals," comparison with other classes, 1193
  Liberty, distribution as dividends, 578
  Long term,
    as irredeemable debt, 99
    as source of capital in promotion, 280
    extra, 97
    financing of permanent improvements by, 827
    history of, 95
    maturity of, 94
    proportion of fixed charges to income, 300
    public service short-term notes convertible into, 220
    source of capital for, at promotion, 280, 281
  Manufacturing companies, 12, 312
  Marketing of, 93
  Maturity date, 83, 94
  Mining, 12
    sinking fund, 602
  Mortgage, 115
    collateral, 136
    consolidated and refunding, railroad reorganizations, 1070
    definition, 86
    equipment, 189, 192

Bonds—*Continued*
  Mortgage—*Continued*
    first, 113, 115, 116, 120, 121, 126, 1100
    general, 123
    investment strength, 115
    origin of, 114
    proportionate value of property underlying, 115
    refunding, 120, 123, 124
    second, 121
    substance of, 69
    third, 121
    value of guarantee, 118, 151
  Open end mortgage bonds,
    after-acquired property clause, 116
    possibilities of danger, 91
    property underlying, 125
    restrictions on, 87
    wide use of, 91
  Open issues, 86
    advantages and disadvantages, 93
    "orphan," return on, 1193
  Participating, 175
  Period of, 94
    long term, 94, 95
    short term, 94
  Place of payment, 86
  Practical consequences of industrial cycle theory, 1219
  Preference (See above under "Bonds, Income")
  Premium,
    accounting, 513
    adjustments, 516
  "Privileged subscriptions," 847
  Promise to pay, 81
  Promotion of,
    public utility by, 339
    small railroad, by, 371
  Proportion of, to stock, 111
  Public utility holding company and subsidiaries, percentage owned by public, 777
  Railroad (See also "Railroad Reorganizations, Securities")
    basis of security, 115
    collateral trust, 127
    debentures, 161, 1070
    long-term, 95
    mortgages, 81
    promotion of small railroads by, 371
    property underlying, 115
  Real estate,
    decline in value, 1192
    value of, 1243
  Redemption of, 100
    rate, 102
  Refunding, 120, 123, 124
    basis of strength, 126

BONDS—*Continued*
  Refunding—*Continued*
    branch lines, 1056
    first mortgage lien on entire system, 1063
    provisions and conditions of issue, 125
  Sale of by bankers in expansion, 828-846
  Salesmen,
    college men as, 412
    training, 414, 417
  "Savings bank" bonds, 108, 110
  Second mortgage, 121
  Secured by credit (See main head "Bonds Secured by Credit," below)
  Secured by property (See main head, "Bonds Secured by Property," below)
  Security, behind, 86
  Serial, 610
  Short term, 94, 280
    source of capital in promotion, 280
  Short-term notes, secured, 138
  Sinking fund for, 100, 592, 602
  Source of capital for, 280
  Special direct lien, 118-120
  Speculative, 110
  Stocks vs., in relation to purchasing power of money values, 1241
  Straight credit, nature of, 141
  Taxation of, 11, 111
  Terminal, 119, 156
  Third mortgage, 121
  Timber, sinking fund, 603
  Time of payment, 83
  Treatment at time of reorganization, 1042
  Underlying (See "Underlying Bonds")
  Unprotected, return on, 1193
  Variety in, 176
  Warehouse, 120
  Western Pacific Railroad, 154
  Wharf, 120
BONDS SECURED BY CREDIT, 141-176
  Adjustment bonds, 167
  Assumed bonds, 144
    investment yield, 147
  Classification of, 113, 141
  Convertible bonds (See also "Bonds, Convertible")
  Debentures (See "Bonds, Debentures")
  Guaranteed bonds (See "Bonds, Guaranteed")
  Income bonds (See "Bonds, Income")
  Joint bonds, 156
  Participating bonds, 175
  Preference bonds, 167
  Receivers' certificates (See "Receivers' Certificates")
  Straight credit bonds, nature of, 141
BONDS SECURED BY PROPERTY, 112-140
  Car trust certificates, 177, 197
  Classification of, 113
  Collateral trust 127
    reasons for use, 128
  Consolidated mortgage, 123
  Divisional, 117
  Equipment, 177
  Extension and refunding, 124
  First mortgage, 113
  General mortgage, 123
  Refunding, 123
    basis of strength, 126
    provisions and conditions of issue, 125
  Second mortgage, 121
  Special direct lien, 118-120
    bridge, 120
    dock, 120
    ferry, 120
    land grant, 120
    terminal, 119
    warehouse, 120
    wharf, 120
  Speculative class, 110
  Third mortgage, 121
BONUS, Preferred stock, in voluntary dissolution, 49
BOOKKEEPING (See "Accounting")
BORROWED CAPITAL (See "Capital, Borrowed")
BORROWER,
  Mental ability, as factor of risk, 1174
  Moral character as factor of risk, 1174
BRANCH LINES,
  Liens on,
    importance of in reorganizations, 1052
    refunding, 1056
  Underlying bonds at time of reorganization, 1048
BRIDGE BONDS, 120
BRIDGE JOINT BONDS, 157
BUILDING DEBT, Average, 111
BUSINESS,
  Small, capital requirements, 651
BUSINESS ABILITY, Extraordinary, success due to, 687
BUSINESS ASSOCIATIONS, Massachusetts, 13
BUSINESS CYCLE (See "Industrial Cycle")
BUSINESS ETHICS, Codes, National Association of Credit Men, 1154
BUSINESS FORESIGHT, Importance of, 1181
BUSINESS MANAGER, Significance of, 1182
BUSINESS ORGANIZATION, Evolution of, periods, 787
  First stages of, small unit, 788
  Intermediate stages of,
    community of interests, 799
    gentlemen's agreement, 788
    pools, 789

Business Organization—*Continued*
  Intermediate stages of—*Continued*
    trade associations, 793, 799
  Later stages, 791
  Problem of, 784
  Reaction toward smaller business units, 792
  Unity vs. diversity, 785
Business Profits (See "Profits, Business")
Business Uncertainties, Reserves for, 533
"Buyer's Strike" of 1920, 1133
Buying, Wholesale, by chain store, 698
Buying Department of Distributing Bankers, at Promotion, 410

C

Call Loans, 279
Call Money, Source, 280
Capital,
  Assets,
    definition of, 6
    sale, above cost as source of surplus, 493
  Borrowed,
    charges, 503-517
    classification of payments, 505-516
    cost, 513
    ease of getting, effect on dividend policy, 543
    payment of cost, 513
  Brought from afar, increased cost, 1174
  Business conception of, 3
  Charges, excessive, payment of as a cause of failure, 922
  Corporation as buyer of, 1165
  Definition, 3, 5, 7
  Demand, effect of interest rate on, 1168
    effect on interest rates, 1168
  Distribution of, as a fundamental cause of failure, 922
  Dividends paid from, 26, 536
  Ease of getting, effect on dividend policy, 534
  Economist's conception of, 3
  Elemental conception of, 3
  Factor of production, 644
  Flow of, impediments to, 1173
  Gross, definition of, 3, 6
  Increase of, effect on production, 644, 648
  Invested, effect upon financial plan, 304
  Investor as seller of, 1165
  Long-time, investment banker as dealer in, 279
  Market, nature of, 1167
  Net, definition of, 4, 7
Capital—*Continued*
  New (See "Money, new")
  Payment of dividends out of, 26, 536
  Price,
    defined, 1167
    effect of supply on, 1168
    effect of war on, 1172
    quantity offered not a direct function of, 1167
  Return on, 265
  Small, businesses suitable for, 651
  Sources of, in expansion, 813-827
    banks, 814
    reinvestment of surplus earnings, 813, 814
    sale of securities to banks, 828-846
    sale of temporary obligations, 818
  Sources of, in promotion,
    call loans, 279
    commercial paper, 279
    long-term bonds, 280
    sale of permanent obligations, 818
    saving, 1165
    short-term bonds, 280
    short-term notes, 280
    short-term securities, 280
    stock, 280
  Sources of in reorganization, 815 (See also "Money New")
  Stock (See "Stock, Capital")
  Supply,
    effect of interest rate on, 1167
    effect on price, 1168
    factors of, 1167
  Surplus, accumulations from depreciation account as, 495
  Turnover, comparison of, 542
  Use of term in accounting, 5
  Working (See "Working Capital")
Capital Surplus Account, 495
Capitalization,
  Bonds, proportion of to stock, 111
  Definition of, 6, 7
  Electric light plants, 323
  Gas works, 323
  Industrial reorganization, effect on, 1118
  Net earnings, 265
    ratios, 266-277
  Plans (See "Financial Plans")
  Public utility holding companies, 775
  Railroads, effect of reorganization on, 1086
  Stock, proportion of to bonds, 111
Car Trust Certificates, 177, 197
Causes of Failure (See "Failures, Causes of")
Certificates,
  Car trust, 177, 197
  Of part ownership, 16

Certificates—*Continued*
  Receivers,
    assessment of holders, 1030
    effect on railroad mortgages, 1016
    floating debts funded into, 1017
    industrial reorganizations, 1109
    legal authority for, 1013
    nature of, 141
    source of new money, 978
  Voting trust, 618
Chain Stores,
  Articles most successfully sold by, 700
  Economical operation of, 698
    "short cut" devices in administration, 698
    wholesale buying, 698
  Successful type of industrial combination, 692
  Types of, 694, 698
  Wholesale buying by, 698
Changes in Demand,
  As a cause of failure, 920
  Effect on obsolescence of machinery, 475
  Reserves for, 533
Changes of Names of Reorganized Corporations, 966, 967
Chemicals, Industries, Debt, average, 111
Circulars, Bonds, 418
Claims at Reorganization,
  Adjustment of,
    bondholders, 968
    creditors, 968, 994
    strikers', 1017
  Age of, effect upon priority, 1012
  Review of creditors claims by receivers, 1150
Closed Issues, Bonds, 86
Coastwise Shipping Business, Certificates of part ownership, 16
Collateral, Value of, 137
Collateral Loans from Banks, Collateral trust bonds vs., 136
Collateral Mortgage Bonds, 136
Collateral Trust Bonds (See "Bonds, Collateral Trusts")
College Men, As bond salesmen, 412
Combinations (See "Industrial Combinations and Consolidations," "Railroad Consolidations")
Commercial Paper Market, Source of funds for, 279
Commercial Paper, Source, 280
Commissions, Bankers, on sale of new securities, 842
Committees, Protective (See "Protective Committees")
Commodity,
  Demand and supply, changes in, 1225
Commodity Prices,
  Effect on supply of new capital, 1170
Common Stocks (See "Stocks, Common")
Community of Interests, 784-812
  As stage of business organization, 799
  Foreign trade corporations, 810
  Formed by,
    common ownership of minority stock interests, 806
    interlocking directorates, as basis of, 806
  Purchase and sale contract, as basis of, 804
  Purpose, 787
  Types, 802-811
Compensation for Wasting Assets, 460-483
Competition,
  Bankers, effect on marketing new securities, 842
  Effect upon financial plan of public utility, 327
  Excessive,
    as cause of failure, 909
    manufacturing business, 911
    railroads, 910
  Preventives, combinations not, 684
  Public utilities, 327, 911
  Railroads,
    excessive, 910
    growth of, 744
  Suppression of, 675
Competitive Businesses,
  Earnings of, check upon probable earnings of new enterprise, 305
Complaint, Bill of, 951
Compromise Securities, 34
Conditional Sales, 179
Conflicting Interests,
  Adjustment of claims at reorganization,
    bondholders, 968
    general creditors, 968
Consent Receiverships, 449
Consolidated Mortgage Bonds, 123
Consolidations (See also "Industrial Combinations and Consolidations," "Railroad Consolidations")
  Advantages, 677
  Assumed bonds, 144, 147
  Competition in spite of, 684
  Financial plan, 314
  Formed by,
    lease, 713
    merger, 712
    outright purchase, 713
  Nature of, 784
  Railroad (See "Railroad Consolidations")
Construction,
  New, as set off to depreciation, 482

CONSTRUCTION COMPANIES,
  Railroad promotion, 365-371
    advantages, 369
    evils, 367
CONSUMERS' GOODS,
  As factor of going concern, 262
  Producers' goods distinguished from, 260
  Regularity of earnings on, 554
CONTINGENT CHARGE SECURITIES, Choice of in refunding bonds, 1065
CONTINGENT LIABILITIES, Balance sheet, place on, 456
CONTINGENT RENTALS (See "Leases")
CONTRACTS,
  Covering convertible bonds, 220
  Operating, cancellation, at reorganization, 1079
  Purchase and sale as basis of community of interests, 804
  Unprofitable, setting aside of by court receiverships, 1148
CONTROL,
  Balance of, effect upon financial plan, 303
  Classification, 709
  Common stock as means of, 44
  Continuation by bond rather than stock issues, 832
  Continuation during expansion, 832
  Disadvantages in expansion (See "Bonds, Advantages over Stock Issues in Expansions")
  Railroad consolidations, 722, 723
    advantages, 722
  Retention during expansion,
    collateral trust bond issue, 727
    exchange of stock, 724
    methods, 723
    purchase of shares, 724
CONVERTIBLE BONDS (See "Bonds, Convertible")
CONVERTIBLE ISSUES, 218-232 (See also "Bonds, Convertible")
  Description of, 218
  Period of convertibility, 229
  Purpose of, 230
CORPORATE FINANCE,
  Basis of, xv
  Definition, viii
  Economic and social influences of, xii
  Field of, xiv
CORPORATE MORTGAGES, Foreclosure, 946, 951, 960, 962
CORPORATE PROPERTIES, Private sale under foreclosure, 965
CORPORATE SECURITIES (See also "Bonds," "Equipment Obligations," "Preferred Stock," "Stock, Common")
  Bonds distinguished from stock, 34
  Importance of, xi
CORPORATE SECURITIES—*Continued*
  Kinds of, 8
  Preferred stock, status of, 34
  Stock distinguished from bonds, 34
CORPORATIONS,
  As buyers of capital, 1165
  Capitalization, 6
  Character of individual, 1225
  Debt, permanent, 615
  Definition, viii
  Failure (See "Failures, Causes of")
  Importance of, x
  Influence of, xii
  Management of,
    old, investment in, 1192
    preferred stock rights, 72
    separate from ownership, xiii
  Ownership of, separate from management, xiii
  Periods in life of, 814
  Reorganized (See "Reorganizations")
  Rise and fall of, 1228
"COST OF GOODS," Defined, 457
COST OF PRODUCTION,
  Inventions, 240
  Market price not determined by, 1227
CREDIT,
  Bonds secured by (See "Bonds Secured by Credit")
  Corporate, changes in, 1225
  Effect of issue of bonds on corporations, 835
CREDIT POSITION,
  Soundness of a prerequisite of stock dividend, 568
CREDITORS,
  Assessments, in industrial reorganizations, 1115
  Bill of complaint, 951
  Claims, adjustment in reorganization, 994
  General, adjustment of claims at reorganization, 968
  Industrial enterprises, 1105
  Protective committees (See "Protective Committees")
  Recalcitrant, 1151
CREDITORS' COMMITTEES, In reorganization, 935
CREDITORS COMMITTEE RECEIVERSHIPS,
  Advantages, less unfavorable publicity, 1155
  Court receiverships vs., 1148
  Disadvantages, 1148-1152
CREDITORS COMMITTEES REORGANIZATIONS, 1133-1162 (See also "Receiverships Court")
  Advantages, 1152-1157
    efficiency and economy, 1154
    ethical motives, 1153

CREDITORS COMMITTEES REORGANIZATIONS —*Continued*
  Advantages—*Continued*
    general mutual confidence engendered, 1152
  Bankruptcy court vs., 1135
  Benefits of, 1135
  Disadvantages, 1157
    difficulty in dealing with recalcitrants, 1159
    lack of courage, 1157
    risk of blame for all consequences, 1161
  Formation of, 1141
  Institution of, 1134
  Membership, 1144
  Methods, 1146
  Resort of, 1137
    extent of, 1140
CUMMINS BILL, Effect on operation and financial control of railroads, 706
CUMULATIVE DIVIDENDS,
  Nature of, 57
  Suspension of, 62
  Value of, 59
CUMULATIVE PREFERRED STOCKS, Railroad reorganizations, 1069
CURRENCY, DEPRECIATION, Effect on bondholders, 1244
CUSTOMER OWNERSHIP, 870-884
  Advantages,
    improvement in financial structure, 880
    sale price higher than market, 878
  Economic value, 882
  Implied obligations assumed by the company, 876
  Preferred shares, objections, 875
  Public utilities, 870
  Reasons given for offering, 870
  Securities sold, classes of, 872
  Selling campaigns, 874
  Social value, 882
CYCLES OF INDUSTRIAL COMBINATIONS, 666

D

DAMAGE SUITS, Avoidance through issue of collateral trust bonds, 130
DEAD RECKONING, Estimation of earnings by, 306
DEBENTURES (See "Bonds, Debentures")
DEBT,
  Average, industrials, utilities and railroads, 111
  Contracted during receivership, payment of, 1017
  Corporate, permanent, 615
  Definition, 6
  Floating (See "Floating Debt")
  Irredeemable, long-term bonds as, 99
DECREE OF SALE, Corporate properties, 963
DEDUCTIONS FROM NET PROFITS (See "Net Profits, Deductions")
DEFERRED ASSETS, Unprofitable improvements as, 533
DEFLATION, Post war, 1133
DEMAND,
  Changes in,
    as cause of failure, 920
    effect on obsolesence of machinery, 475
    reserves for, 533
  Increase, efforts of manufacturers' associations toward, 800
DENOMINATIONS, Bonds, 82
DEPRECIATION,
  Accumulations from account for, as capital surplus, 495
  Charges,
    distinguished from repair charges, 467
    railroad failure postponed by reduced, 977
  Deficits in account, absorption by capital surplus account, 496
  Definite, 461
  Nature of, 466
  Reserves, 466
    amount set aside for, 470
    gross earnings as offset, 482
    neglect of by interurban electric roads, 376
    new construction as offset, 482
    objectionable practices, 480
    reason for, 461
  Theory, 466
DIMINISHING RETURNS (See "Law of Diminishing Returns")
DIRECT LIEN BONDS, 118
DIRECT SALE,
  Securities by issuing company, at promotion, 426
DIRECTORATES, Interlocking, as basis of community of interests, 806
DISCOUNTS,
  Adjustment for, when made, 505
  Bank,
    deduction from net profits, 506
    defined, 506
  Bonds,
    accounting, 513
    adjustment, 514
DISSIPATION OF ASSETS, Prevention of for protection of preferred stockholders, 65
DISSOLUTION, Voluntary, rights of preferred stock, 49
DISTRIBUTING BANKERS (See "Bankers, Distributing")
DISTRICT ASSOCIATIONS, 794-799
  Agricultural, 796
  Membership, unanimity of, 798

- District Associations—*Continued*
  - Organization, 794
  - Purposes, 794
- Dividends,
  - Accumulated, reorganizations to extinguish, 1120
  - Action, withholding of news of, 537
  - Bank stocks,
    - expediency of declaring, 589
    - payment of, 488
  - Bonds distributed as, 562, 578
  - Cumulative,
    - nature of, 57
    - suspension of, 62
    - value of, 59
  - Declaration,
    - effect of widespread ownership of common stock on, 589
    - factors determining sound policy, 590
    - regularity of advantages, 546
    - typical cases, 581
  - Earned but not declared, 61, 76
  - Extra, 561
  - Expediency of declaring, 581-591
    - illustration, 581
    - manufacturing businesses, 581
    - public utilities, 585
    - railroad, 588
  - Factors determining, 536-580
    - confidence in accounting, 541, 544
    - ease of getting capital, 543
    - maintenance of dividend rate, 541
    - reinvestment in business, 541
  - Guaranteed, 36, 37
  - Industrials, preferred stock, 55
  - Liberty bonds, distributed as, 578
  - Net profits, adjustment for, 503
  - On stock of other companies, accounting, 506
  - Paid out of capital, 26, 536
  - Payment out of capital, 536
  - Policy (See above under "Dividends, Declaration of")
  - Premium on stock not as source of, 492
  - Profits available for, 494
  - Property, 578
  - Proportion of to income, effect on financial plan, 301
  - Provisions, recent variations in, 61
  - Public utilities, preferred stock, 56
  - Railroads, preferred stock, 57
  - Rates, 54-57
    - Class A, common, 77
  - Regularity,
    - common presumptions regarding, 553
    - effect of type of business, 554
    - illustration, 550
    - requirement, 546
    - reserves, 549
- Dividends—*Continued*
  - Sale of capital assets above cost proceeds not available for, 493
  - Scrip, 563
  - Sources of surplus for payment of, 500
  - Stock (See "Stock Dividends")
  - Unearned, 8
    - payment from surplus, 486
    - payment of as cause of failure, 922
- Divisional Bonds, 117
  - Railroad reorganizations,
    - classes of, 1051
    - refunding, 1048
    - treatment of, 1047
- Dock Bonds, 120

E

- Earning Power,
  - As basis of financial plan, 297
  - As basis of security, 115
  - As basis of value, 115, 264
- Earnings,
  - Abnormally large, reserves from, 534
  - Comparison of estimated with actual earnings of industrial consolidations, 890, 897
  - Combinations, comparison of the sums of fixed and contingent charges, with previous, estimated, and later earnings, 890, 898
  - Competitive businesses, check upon probable earnings of new enterprise, 305
  - Consumers' goods, 554
  - Creation of surplus from, 500
  - Estimated, 561
    - by dead reckoning, 306
    - effect upon financial plan, 297, 300, 311
    - reorganized public utility, 329
  - Future, tested by invested capital, 304
  - Gross,
    - as basis of contingent rental, 714, 716
    - as offset to depreciation reserves, 482
    - index of value of public utility, 338
  - Industrial consolidations,
    - comparison of earnings immediately after consolidation with later earnings, 890, 898
    - comparison of estimated with actual earnings, 890, 897
    - comparison of previous earnings before consolidation with actual earnings, 889, 897
    - comparison with previous earnings under competitive conditions, 673
  - Lien, priority of on, 55
  - Net, as basis of contingent rental, 714, 716
  - Overstatement, significance of, 537

Earnings—*Continued*
  Preferred stock lien on, 54
  Producers' goods, 554
  Prospective, of utilities, 332
  Public utilities, estimated vs. actual, 321, 332
  Public utility holding companies, 779
  Public utility promotion, determination of by comparative, 327
  Regularity,
    effect of types of business, 554
    effect upon financial plan, 301
    law of, 557
  Reinvestment, "New England Method," 816
  Reorganized railroads,
    ascertained from actual operation, 956
    estimated from receivers' reports, 956
  Retention of, 540
  Surplus, reinvestment as source of capital, 813, 814
Economic Business Profits, 1180
Economic Motive of Expansion, 634-637
Economic Profits (See "Profits")
Economic Risk, Burden of, 1181
Economic Value, Basis of, 115, 259
Economics,
  Changes affecting investment, 1225
  Viewpoint, effect of psychology on, 1213
Efficiency, Technical, Public utility holding company, 758
Electric Interurban Road, Promotion of, 375
Electric Light Plants, Capitalization, 323
Employees, Effect of outside receiver on, 156
Engineer's Work in Promotion, 286
Enterprises, Social value as factor of risk, 1174
Entrepreneur Ability, Traction companies, 1092
Equipment (See also "Obsolescence," "Repairs")
  Cost and depreciation, 201
  Debt, average, 111
  Depreciation and repayment, 203
  Large-scale purchase advantage to public utility holding company, 762
Equipment Bonds, 177
  Conditions of issue, 192
Equipment Mortgage Bonds, 189, 192
Equipment Obligations,
  After-acquired property clause, 187
  Car trust certificates, 197
  Conditional sale vs. lease, 210-214
  Credit behind, 178
  Definition, 177
  Equipment covered by, 195
Equipment Obligations—*Continued*
  Equipment mortgage plan, 194
  Extent of present use, 181
    relative value, 209
  Form, 177
  Guarantees, 197
  History, 178
  Importance, 182
  Increase in strength as instalments are paid, 207
  Increased use of, 182
  Industrials, 183
  Investment strength, 178, 217
  Lease,
    securing, 190
    vs. conditional sale, 210-214
  Legal status, 178, 189-194
  Mail order houses, 184
  Mortgage, weakness of, 209
  Obligations to refund war equipment, 197
  Plans of issue, 190
    New York, 189, 192
    Philadelphia, 190
      general repute, 210
      legislative status, 210
      policy governing, 192
      status under receivership, 212
  Railroad car trust, 179
  Reasons for use, 184
  Reorganization experiences, 214
  Taxation, 188
  Utilities, 183
  Value of equity behind, 200
  Yield, 185
Equity,
  Behind equipment obligations, 200
  Protection of, of preferred stock, 66
Established Enterprises,
  Combinations, comparative effectiveness of promotions, 249
  Exploitation of, 246
  Underwriting syndicates for, at promotion, 381
Estimated Earnings, Industrial consolidations, comparison with actual, 890, 897
Ethics, Business, Codes of National Association of Credit Men, 1154
Evolution of Business Organization (See "Business Organizations")
Expansion (See also "Law of Balanced Return," "Industrial Combinations and Consolidations," "Railroad Consolidations")
  Bonds, advantages of in, 828-832
  Control, continuation during, 832
  Increase profits, test of expediency of, 639
  Industries effect of increased labor costs, 651

Expansion—*Continued*
  Motives, 633-638
    ambition, 635
    creative impulse, 636
    desire for large business, 434, 435
    economic, 636
    speculation, 637
  Point at which unprofitable, 640
  Problems, finance, 634
    organization, 634
  Railroad, 706-752
  Sale of new securities to stockholders, requirements of success, 847
  Sources of capital,
    reinvestment of surplus earnings, 813
    sale of permanent obligations, 818
    sale of securities to banks, 828-846
    sale of temporary obligations, 818
  Stock, advantages over bonds in, 828-833
  Unprofitable,
    as a cause of failure, 912
    as example of law of diminishing returns, 919
    manufacturing businesses, 912
    point of, 640
    public utilities, 913
    railroads, 914, 976
Experts, Services of, during Reorganization, 953
Exploitation,
  Established industry, 246
  Patented articles,
    for general consumption, 238
    for manufacturers, 239
Exporting Companies, Successful type of industrial combinations, 701
Extension and Refunding Bonds, 124
Extra Dividends, 561

F

Failures,
  Causes, fundamental, 908-929, 1102, 1108
    capital charges, excessive, 922
    capital, distribution of, 922
    demand, changes in, 920
    excessive competition, 909
    payment of unearned dividends, 922
    summarized, 909
    unprofitable expansion, 912
    lack of working capital, 925
  Causes, superficial, 908-929, 1102, 1108
    vs. fundamental, 908
  Events immediately preceeding, 934
  External signs of, 926
  Industrial, causes, 1108
    manufacturing businesses, 911
    partnerships, 904
    public utilities, 913

Failures—*Continued*
  Industrial, causes—*Continued*
    railroads (See "Railroads, Failures")
    reorganization result of, 903
    signs of, external, 926
    traction companies, 1089
Ferry Bonds, 120
Finance (See also "Corporate Finance")
  Accounting theory, significance of, in 453-459
  Aid to subsidiaries by public utility holding companies, 767, 769, 770
  Axioms of, 296
  Definition, vii
  Elemental conception, 8
  Private,
    classification of, viii
    definition, vii
  Public, definition, vii
  Relation of to expansion, 434
Financial Plans,
  Axioms, 296
  Balance of control, effect on, 303
  Banker's responsibility for, 295
  Bond issue determined by proportion of fixed charges to income, 300
  Considerations determining, 294, 296
    control of enterprise, 296, 303
    cost of property, 300
    earnings, 296, 297
    estimated earnings, 297, 300, 311
    investment traditions, 312
    security market, 296, 302
    value of tangible assets, 296
  Consolidations, 314 (See also "Industrial Combinations and Consolidations," "Railroad Consolidations")
  Definition, 294
  Effect of future of district on, 327
  Effect of market traditions upon, 302
  Formulated by banker, 295
  Hydro-electric plant, 347
    typical, 349
  Invested capital, effect upon, 304
  Manufacturing company, 304-318
    bonds, 312
    summary of principles, 317
  New enterprise, effect of competitive businesses on, 305
  Past earnings,
    effect on, 308
    element of time in effect on, 311
  Preferred stock, proportion of dividends to income, 301
  Principles underlying, 294-303
  Public utility, 303, 319-361
    effect of competition on, 327
    effect of future of district on, 327
    form of, 338-343

FINANCIAL PLANS—*Continued*
  Railroads, 362-376
    new, 371
    small, 372
  Securities issued, 300
  Specialty manufacturing business, 313
  Wholesale banking house, services of, 409
FIRST MORTGAGE BONDS (See "Bonds, First Mortgage")
FIRST MORTGAGE LIENS,
  On entire system,
    railroad reorganization, 1062
    refunding of, 1063
    refunding with contingent charge securities, 1065-1072
FISCAL AGENT'S WORK IN MARKETING LOW GRADE SECURITIES, 434, 436
FIXED ASSETS, As factor of going concern, 262
FIXED CAPITAL, Effect of varying cost of under constant labor costs, 645
FIXED CHARGES, Capital raising in relation to reduction of, 1005
  Classes of securities found at time of railroad reorganizations, 1047
  Contracts, operating, cancellation at reorganization, 1079
  Income, proportion to, 300
  Industrial reorganizations to relieve, 1119, 1128
  Interest on bonded debt, reduction at reorganization, 1079
  Net extent to which reduced in past reorganizations, 1081
  Practical expedients in current use, 1072
  Proportion to income, 300
  Reduction,
    by refunding of underlying issues, 1048
    capital, raising, relation to, 1005
    in railroad reorganization, 976, 1042-1088
    interest on bonded debt (See "Railroad Reorganizations, Securities")
    involuntary reorganizations, 1083
    practical expedients in current use, 1072
    leases, cancellation of, 1079
    procedure, 1047
    railroad reorganizations, 1042-1088
    voluntary reorganizations, 1083
FIXED PROPERTY, Financing of, 825
FIXED RENTALS (See "Leases")
FLOATING DEBT,
  Industrial reorganizations to relieve, 1126
  Payment, at reorganization, 1016
  Provisions limiting, for protection of preferred stockholders, 66, 68
  Railroad failures postponed by increase in, 977
  Treatment of, in reorganizations, 1005
FOOD INDUSTRIES, Debt, average, 111
FLOW OF CAPITAL, Impediments to, 1173
FORECLOSURE,
  Corporate mortgages, 951, 960
    doctrine of, 946, 962
  Private sale of corporate properties under, 965
FOREIGN BONDHOLDERS' COMMITTEES AT REORGANIZATIONS, 936
FOREIGN MARKETS,
  Corporations,
    illustration of community of interests, 810
    provisions of Webb Act regarding combinations of, 704
  Exploitation by manufacturers' associations, 800
  Industrial combinations to foster, 704
FORESIGHT, Business, 1181
FOSDICK V. SCHALL, Rule in regarding priority of operating expenses over capital charges, 1008
FRIENDLY RECEIVERSHIPS, 449
FULL-PAID STOCK, 16
FUTURE EARNINGS,
  Checked by invested capital, 304
  Estimation by,
    previous earnings, 308
    previous earnings, element of time, 311

G

GAS WORKS, Capitalization, 323
  During economic cycle, 1214
GENERAL CREDITORS, Legal status at time of reorganizations, 970
GENERAL MORTGAGE BONDS, 123
GENERAL REORGANIZATION COMMITTEES, 935 (See also "Protective Committees")
GENTLEMEN'S AGREEMENTS, 788
GIFT OF PROPERTY, As source of surplus, 497
GOING CONCERN,
  Consumers' goods as factors, 262
  Earning power as basis of value, 264
  Management as factor of, 262
  Valuation,
    basis of, 262
    capitalization of net earnings, 265
    factors of, 262
    for purposes of promotion, 258-277
GOLD,
  Payment in, delusions regarding, 1231
  Purchasing power, change in, 1232
GOLD COIN, Bond payment in, 81
GOOD-WILL, Investment bankers, 285
GOODS,
  Consumers' vs. producers', 260
  Cost of, defined, 457

GRACE, Period of for prior claims, at reorganization, 1012
GROSS CAPITAL,
  Definition of, 3, 6
  Distinguished from net capital, 3
GROSS EARNINGS,
  As off-set to depreciation reserves, 482
  Basis of computing contingent rental, 714, 716
  Bonds, restriction of new issues, 89
  Index of value of public utility, 338
GROSS INCOME OF PUBLIC UTILITY HOLDING COMPANY COMPARED WITH NET, 779
GROSS INTEREST, Components, 1176
GROSS PROFITS,
  Adjustment, in determining net profits, 456, 457, 458
  Computation of, 456
  Defined, 503
  Dividends on subsidiaries securities as, 506
GUARANTEED BONDS, 149
  Guaranteed stock vs., 37
  Intrinsic strength, 152
  Strength of guaranteeing corporation, 153
  Value of guarantee, 118, 151
GUARANTEED DIVIDENDS, 36, 37
GUARANTEED EQUIPMENT OBLIGATIONS, 197
GUARANTEED STOCK, 34, 36
  Guaranteed bonds vs., 37
  Responsibility of holders, 38
  Yield, 40
GUARANTEED SUBSIDIARY'S SECURITIES, ACCOUNTING FOR LOSSES FROM, 510

H

HANDWORK, Factory using, small capital required for, 651
HOLDING COMPANIES,
  Banking, 781
  Increase of, cause of, 303
  Investment, 781
  Management, 781
    preferred stocks of, 56
    stock dividends, 574
  Public utility (See "Public Utility Holding Companies")
HYDRO ELECTRIC PLANTS,
  Estimated cost of construction, 245
  Financial plans, typical, 349
  Promotion of, 347
    typical plan, 352
  Securities, marketing, 350
  Syndicates for, 384

I

IMPROVEMENT AND REFUNDING MORTGAGE BOND, 124
IMPROVEMENTS,
  Permanent, financing of, 826, 827
  Unprofitable,
    as deferred assets, 533
    banks, 529
    estimation of reserves, 532
  Use of sinking fund for, 609
INCOME (See also "Investment Income")
  Account, 454, 456
  Basis of, at promotion, 297
  Gross and net of public utility holding company, compared, 779
  Net (See "Net Profits")
  Proportion of fixed charges to, at promotion, 300
  Savings for, 1170
  Taxation of, 579
INCOME BONDS (See "Bonds, Income")
INDUSTRIAL COMBINATIONS AND CONSOLIDATIONS, 664-705 (See also "Consolidations," "Expansion," "Public Utility Holding Companies")
  Comparison of—
    actual and estimated earnings, 890, 897
    earnings immediately after consolidation with later earnings, 890, 898
    previous earnings before consolidation with actual earnings, 889, 897
    sums of fixed and contingent charges with previous, later, and estimated earnings, 890, 898
  Consolidations of, 669
  Cycles of—
    major, 667
    minor, 666
  Data, fundamental, 892
  Disadvantages, 679
  Earnings compared with previous earnings under competitive conditions, 673
  Economic postulates pertaining to formation, 674
  End of movement, reasons for,
    attitude of law, 671
    investment sentiment, 671
    lack of success, 670
  Failure of, 673
  For foreign trade, Webb Act, 704
  Great War, effect on, 672
  History, 665
  Integration a factor, of success, 689
  Law of balanced returns, application to, 664
  Present day, 687
  Problem, 664

INDUSTRIAL COMBINATIONS AND CONSOLIDATIONS—*Continued*
  Promotion, 246
    comparative effectiveness, 249
  Success of, statistical test, 885-898
  Successful types, 688-705
    automatic tool using industries, 688
    chain stores, 692
    exporting companies, 701
    integrated industries, 689
    shipping companies, 701
    vertical combinations, 689
  Weakness of—
    human defects, 679
    size, 680
INDUSTRIAL CYCLE,
  Bonds, effect of on, 1219
  Importance of theory, 1205
  Investment risk and the, 1214
  Investment with reference to, 1205-1224
  Investment yield, factors affecting, 1216
  Practical consequences of theory, 1219
  Pure interest and, 1208
  Stock, common, practical consequences of industrial cycle theory on, 1220
INDUSTRIAL FAILURES (See "Failures, Industrial")
INDUSTRIAL PROSPERITY,
  Effect upon financial plan of public utility, 325
  Indices of, 325
INDUSTRIAL REORGANIZATIONS, 1102-1132
  Accumulated dividends, extinction of, 1120
  Capital adjustment,
    exchanging higher paying preferred stock, 1121
    funding preferred stock and accumulated dividends into bonds, 1124
    funding preferred stock dividend accumulations, 1122
    new preferred stock issues, 1129
  Capitalization, effect on, 1118
  Causes (See "Failures, Causes")
  Characteristics, 1102
  Classes, 1118
  Common stockholders, treatment of, 1131
  Compared with railroad reorganizations, 1102
  Failure as a cause (See "Failures")
  Financial plan, 1109, 1118
  Fixed charges, changes in, 1119, 1128
  Floating debt, to relieve, 1126
  Management of, by bankers, 1111
  Money from bondholders, 1113
  Money from creditors, 1115
  Names of new companies, 966
  New money in, 1109
  Personal element, significance of, 1107
INDUSTRIAL REORGANIZATIONS—*Cont'd*
  Plans, 1103
    study of, 1131
  Preferred stockholder's claims, 1125
  Purposes, 1108
  Receivers' certificates, 1109
  Sale of,
    stock, 1110
    textile mills, 1113
    treasury assets, 1110
  Types, 1118
  Voluntary, 940
INDUSTRIALS,
  Average annual returns from stock dividends, 571
  Bonds,
    average yield, 1197
    interest rate, 85
    long-term, 96
    restrictions on, 89
  Capital stock, 11
  Collateral trust bonds, 128
  Convertible issues, 221, 222
  Creditors, position of, 1105
  Debentures, 162
  Debt, average, 111
  Dividend rate, preferred stock, 55
  Equipment obligations, 183
  Expansion of, effect of increased labor costs, 651
  Financial structure, proportion of stock to bonds, 111
  Improvements, unremunerative, 529
  Income bonds, 168
  Liquidation, 1106
  Participating preferred stock, 64
  Preferred stock,
    average yield, 1198
    degree of preference, 48
    relative value, 1198
  Profits, 845
  Rates for capitalized earnings, 275
  Redemption of preferred stock, 51
  Sinking fund, 595
  Stock dividends, 570
  Surplus, 486
    investment of, 502
  Without bonds, failure, 1104
  Working capital, importance of, 1102
INDUSTRIES,
  Choice of, for investment, 1191
  Rise and fall of, 1228
  Trend of, conditions affecting, 1226
  Young, investment in, 1229
INERTIA, Effect on pure interest rate, 1172
INFLATION, Preceding 1920 crisis, 1138
INSTALMENTS FOR SINKING FUND RESERVES (See "Sinking Fund")

INSTITUTIONAL BANKER, Investment banker vs., 278

INSURANCE,
  Offered by underwriting syndicates, 385
  Reserves, 525
    investment of, 528
  Self-insurance, 525

INSURANCE COMPANIES, Capital stock, 10, 11, 12
  Sale of stock at a premium, 489, 491
  Surplus,
    investment of, 501
    paid-in, 487
  Underwriting syndicates as, 406

INTEGRATED INDUSTRIES,
  Profits and losses, balancing of, 691
  Regulation of production, 689

INTEGRATION,
  Factor in success of industrial combinations, 689

INTERCOMPANY HOLDINGS, Profits, accounting, 506

INTERCOMPANY SECURITIES, Percentage of held by parent, 777

INTEREST,
  Bonds,
    charges for, 506
    deduction from net profits, 506
    rate, 83
    reduction of at railroad reorganizations, 1079
    restrictions on new issues, 89
  Controversies over for income bonds, 169, 170
  Gross, components, 1176
  Guaranteed, losses of, 510
  Paid, deduction from net profits, 506
  Priority of claims to, relation of priority to lien, 120
  Pure,
    defined, 1171
    effect of change in rate on market value of investments, 1209
    effect on market value of investments, 1209
    industrial cycle and, 1208
    theoretical nature, 1174
  Rate,
    effect of increase on capital supply, 1167
    effect of locality on, 1172
    effect on demand for capital, 1168
    effect on new capital, 1169
    pure, 1171
  Received, addition to net profits, 506
  Risk, premium for, 1174

INTERESTS, COMMUNITY OF (See "Community of Interests")

INTERLOCKING DIRECTORATES, As basis of community interests, 806

INTERURBAN ELECTRIC ROAD, Promotion of, 375

INVENTIONS,
  Cost of production, 240
  New machinery, effect on obsolescence, 475
  Promotion of, 238

INVENTORIES, REORGANIZATION, 953

INVENTORS AS PROMOTERS, 237

INVESTED CAPITAL, Future earnings tested by, 304

INVESTMENT,
  Art vs. science of, 1188
  Bad, definition, 1187
  Business profit or loss on, 1177
  Defined, 1164
  Choice of industries for, 1191
  During periods of rising prices, common stocks as, 1233
  Economic profits, theory of applied to, 1181-1204
  Essential element, 1166
  Evaluation of, effect of psychology on, 1213
  "Good,"
    definition, 1186
    time for sale of, 1222
    vs. bad, 1186
  Gross return, factors constituting, 1179
  Industrial cycle and, 1205-1224
  Insurance reserve, 528
  "Legals,"
    comparison with other classes, 1193
    risk in, 1193
  Life insurance as an, 1189
  Marginal utility as dominating consideration for small, 1188
  Market value, effect of change in pure interest rates on, 1209
  Permanent policy, 1225-1246
    caution regarding, 1246
  Purchasing power of money and, 1229
  Purpose of, 1207
  Relative extent of knowledge of, 1191
  Return,
    analogy in insurance, 1179
    elements of, 1183
  Risk,
    distance not a factor, 1174
    distribution of, 1189
    industrial cycle and, 1214
    recognized estimate, 1211
  Securities, marketing of, at promotion, 408-431
  Selection of, 30
  Sentiment, on industrial combinations, 671
  Short-period, 1205-1224
  Sinking fund reserves, 606
  Situation, constant change in, 1222

- Investment—*Continued*
  - Small, 1188
  - Status of,
    - bonds, 107
    - debentures, 159
    - equipment obligations, 179, 217
    - mortgages, 115
    - preferred stock, 64, 65, 68
  - Street railways, 1227
  - Surplus, 500
  - Taxable vs. non taxable securities, 1196
  - Theory of, 1165
  - Time of, 1206
  - Traditions, effect on financial plan, 312
  - Trust fund, 390
  - Values,
    - as affected by political, economic or social changes, 1244
    - causes of changes in, 1225
    - convertible issues, 231
    - debentures, 159, 163
    - judgment of, 1227
  - Widely known, risk in, 1191
  - Widows', 1188
  - Yield,
    - assumed bonds, 147
    - equipment obligations, 185
    - factors affecting, 1216
    - guaranteed stock, 40
- Investment Banker,
  - Administrative function, 291
  - As dealer in long-time capital, 279
  - Bond sale by, 828, 836
  - Distributive function, 285
  - Economic usefulness of, at promotion, 283
  - Effect of competition between on marketing new securities, 842
  - Exchange of securities by, 843
  - Functions, 278, 283
    - distinguished from institutional bankers, 278
    - maintenance of market by, 293
    - sale of securities by, 285, 408
    - selective, 286
  - Promotion by, 278-293
    - promotion, 254
  - Profit,
    - margin of, 846
  - Sale of new securities to, economy of, 842
  - Selection of enterprises by, 286-290
  - Stock brokers distinguished from, 282
  - Stock sale by, 828, 834, 844
  - Types, 408
  - Wholesale, 408
- Investment Holding Companies, 781
  - Surplus, paid-in, 487
- Investment Income,
  - Definition, 1166
  - Nature of. 1164
- Investment Trusts, 1246
- Investors,
  - As source of capital, 814, 1165
  - Lists of, 415
  - Prejudices, effect on financial plan, 312
  - Small, value of, 111
- Involuntary Reorganizations, 941
- Irredeemable Annuities, 98

J

- Joint Bonds, 156
- Junior Securities, Railroad reorganizations, 1070
  - Refunding of, 1070

L

- Labor,
  - Conditions, effect on machinery and obsolescence, 476
  - Costs,
    - high, effect on scale of production, 649
    - increase of, effect on production, 650, 651
    - low effect on scale of production, 648
  - Effect on production of varying quantity of, 644
  - Factor of production, 644
  - Skilled, success of industrial combinations not requiring, 688
- Lack of Working Capital as Cause of Failure, 925
- Land Grant Bonds, 120
- Large Businesses, Desire for, motive of expansion, 434, 435
- Law of Balanced Return, 639-663
  - Application of, to industrial combinations, 664
  - Defined, 639
  - Expounded, 653
  - Extraordinary business ability a cause of exception to, 687
  - Industrial combinations, 664
  - Practical utility, 661
  - Social aspects, 662
- Law of Diminishing Returns, 640
  - Application to manufacturing industries,
    - capital effect on product of varying quantity of, 644
    - effect of varying cost of fixed capital under constant labor costs, 645
    - effect of varying cost of labor under constant capital costs, 648
    - labor, effect on product of varying quantity of, 645
    - possibility of, 642
    - problem of, 645
  - Scope, 642

LAW OF DIMINISHING RETURNS—*Cont'd*
  Traction companies, 1089
  Unprofitable expansion as example of, 919
LAWYER'S WORK IN PROMOTION, 287
LEASES (See also "Rentals")
  Advantages, in forming consolidations, 713
  Burdensome, cancellation of, in railroad reorganization, 1079
  Consolidations effected by, 713
  Contingent, rental,
   fairest form of, 717
   gross earnings as basis of computation, 714, 716
   net earnings as basis of computation, 714, 716
   traffic interchange as basis of computation, 714, 715
   when specified, 713
  Equipment obligations, secured by, 190
  Fixed rentals,
   advantages, 720
   forms, 718
   use in railroad consolidations, 712
   when specified, 713
  Railroad,
   consolidation effected by, 710
   reorganizations, treatment of in, 1079
  Securing equipment obligations, 190
LEGAL ASPECTS OF REORGANIZATION, 953, 963
"LEGAL" INVESTMENTS, 108
  Comparison with other classes, 1193
LEGISLATION, Protection against special, by manufacturers' associations, 801
LIABILITIES,
  Contingent, place on balance sheet, 456
  Revaluation, reserves arising from, 458
LIBERTY BONDS, Distribution as dividends, 578
LIENS,
  First mortgage on entire system,
   railroad reorganization, 1062
   refunding, 1063
  Priority of,
   on assets, 47, 64
   on earnings, 55
   relation to priority of interest payment, 120
LIFE INSURANCE, As an investment, 1189
LIQUIDATION,
  Industrial enterprises, 1106
  Status of preferred stock at, 49
LOAN SYNDICATES, At reorganizations, 1040
LOANS,
  Call, 279
  Collateral from bank vs. collateral trust bonds, 136
  For syndicate account, 399
LOANS—*Continued*
  Proportion of fixed charges to income, 300
LONG-TERM BONDS (See "Bonds, Long-Term")
LOSSES UNDER GUARANTEE, Accounting, for, 510
LOW GRADE SECURITIES,
  Marketing of, at promotion, 432-450
  Sale of,
   appeal to avarice, 438
   appeal to speculation, 440
   appeal to vanity, 445

M

MACHINERY (See also "Repairs")
  Factories using, large capital required for, 656
  Obsolescence due to,
   change in demand, 475
   labor conditions, 476
   new inventions, 475
  Royalties for use of, 511
MAIL-ORDER HOUSES, Equipment obligations, 184
MAIN LINE UNDERLYING MORTGAGES,
  Refunding at time of railroad reorganization, 1048
MAINTENANCE (See "Depreciation," "Repairs")
MAINTENANCE CHARGES, Railroad failure postponed by reduced, 977
MAINTENANCE OF MARKET BY BANKERS, 424
MANAGEMENT,
  As factor of going concern, 262
  Ownership separate from, xiii
  Preferred stock rights to, 72
  Risky vs. stable business, 265
MANAGEMENT HOLDING COMPANIES, 781
MANAGERS OF SYNDICATES AT PROMOTION, 383, 389
  Successful, characteristics, 306
MANUFACTURERS,
  As promoters, 248
  Exploitation of patented articles for, 239
  Specialty, financial plans of, 239
MANUFACTURERS' ASSOCIATIONS, 799
  Demand for products increasing of by, 800
  Protection against political attack, 801
MANUFACTURING COMPANIES,
  Bonds, 12, 312
  Capital stock, 11
  Causes of failure of, 911
  Dividends, expediency of declaring, 581
  Earning capacity, tested by earnings of other concerns, 305

MANUFACTURING COMPANIES—*Continued*
  Financial plan, 304-318
    bond issue, 300, 312
    summary of principles, 317
  Law of balanced return (See "Law of Balanced Return")
  Law of diminishing returns (See "Law of Diminishing Returns")
  Specialty, financial plans at promotion of, 313
MARKET,
  As promotion factor, 239
  Bond, 93
  Foreign, (See "Foreign Markets")
  Investment securities, 408-431
  Low-grade securities, 432-450
    method of appeal, 440
  Maintenance,
    by distributing bankers, 424
    by investment banker, 293
  Price,
    cost of production, effect on, 1227
    effect of change in value of risk premium on, 1215
    factors determining, 1227
  Traditions, effect on financial plan, 302
  Width of,
    effect of expansion on, 836
    effect of, sale of new securities on, 836
    effect of selling new securities to bankers, 839
    effect on financial plan, at promotion, 302
MARKETING (See "Sale of Corporate Securities")
MASSACHUSETTS ELECTRIC ROADS, Promotion, 375
MASSACHUSETTS LIGHTING COMPANIES, Sale of stock at a premium, 489
MASSACHUSETTS VOLUNTARY ASSOCIATIONS, 13
MATURITY DATE, Bonds, 83
MECHANICAL IMPROVEMENTS, Effect on common stocks, 1235
MERCHANDISE FOR RESALE, Financing of, 826
MERGER, Use in railroad consolidations, 712
MINES,
  Bonds, 12
    sinking funds for, 602
  Capital stock, 11
  Debt, average, 111
MINORITY STOCK OWNERSHIP, Community of interests as basis, 806
MONEY,
  Purchasing power,
    causes affecting, 1225
    investments and, 1229
MONEY ADVANCES TO SUBSIDIARIES OF PUBLIC UTILITY HOLDING COMPANY, 767, 769
MONEY, NEW,
  Effect of commodity prices on, 1170
  In industrial reorganizations,
    sources, bondholders, 1113
    contributions by stockholders, 1112
  Interest rate, effect on, 1169
  Need of,
    at reorganizations, 997
    payment of debts contracted during receivership, 1017
    payment of direct expenses incident to reorganization and receiverships, 1017
    payment of floating debt, 1016
    payment of strikers' claims, 1017
    working capital, 1017
  Railroad reorganizations, 1005-1041
  Reorganizations, difficulty of obtainings, 901
  Securement of, as purpose of railroad reorganization, 978
  Source of,
    assessment of creditors in industrial reorganizations, 1115
    assessment of stockholders, 1020
    at time of reorganization, 1017
    for railroads, 1005-1041
    receivers' certificates, 1109
    sale of securities in treasury, 1018
    sale of securities to bankers, 1019
MONOPOLY PRICE, Theory of, 319
MORTGAGE BONDS (See "Bonds, Mortgage")
MORTGAGE COLLATERAL BONDS, 136
MORTGAGES,
  After-acquired property clause, 130
  Corporate, foreclosure of, 946, 951, 960, 962
  Equipment obligations, 194
  Open-end, sinking fund, 599
  Railroad, effect of receivers' certificates on, 1016
  Underlying main line and divisions, refunding at time of railroad reorganization, 1048
MOTOR INDUSTRY,
  Debt, average, 111

N

NAMES,
  Changes in reorganized corporations,
    industrials, 967
    public service, 966
NATIONAL BANKS, As investment banks, 282

NECESSARY OPERATING EXPENSES,
  Defined, 1011
    priority of claims for, 1011
NEGOTIATIONS IN PROMOTION, 356-361
NET ASSETS, As basis of stock dividends, 567
NET CAPITAL,
  Definition of, 4, 7
  Distinguished from gross capital, 4
NET EARNINGS,
  Capitalization, 265
    ratios, 266
  Contingent rentals based on, 714, 716
NET INCOME, Public utility holding company, comparison with gross, 779
NET PROFITS,
  Addition to,
    annual instalment of bond premium, 516
    discounts taken, 505
    dividends received, 506
    interest received, 506
    payments for patent rights, 512
  Adjustments,
    defined, 457
    for reserves and dividends, 503
    in determining, 456, 457, 458
  Deduction from,
    annual instalment of bond discount, 514
    bank discount, 506
    bond interest, 506
    interest paid, 506
    note interest, 506
    payment for patent rights, 512
    rentals, 508
  Defined, 503
NET TANGIBLE ASSETS, Banks, 485
NEW BUSINESS, Public utility holding companies, facilities for solicitation, 766
NEW CAPITAL, Interest rate, 1169
NEW CONSTRUCTION, As an offset to depreciation reserve, 482
NEW ENTERPRISE, Effect of earnings of competitive business on financial plans, 305
NEW MACHINERY, Effect on obsolescence of old, 475
NEW MONEY (See "Money, New")
NEW SECURITIES (See also "Privileged Subscriptions," "Securities, New Sale of")
NEW YORK AND ERIE, Reorganization 1859, 983-985
NEW YORK PLAN OF ISSUE OF EQUIPMENT OBLIGATIONS, 189, 192
NO-PAR VALUE STOCK (See "Stock, No-Par Value")
NON-ASSENTING SECURITY HOLDERS, In reorganizations, 967
NOTES,
  As sources of capital, 818
  Bonds as long-term promissory, 79
  Financing of self-liquidating property by, 826
  Industrial, investment quality, 820
  Interest, deduction from net profits, 506
  Maturity of, 94
  Protection of preferred stock from, 66
  Public utility promotion, 341
  Railroad reorganizations, 1070
  Secured short-term, 138
  Security behind, 95
  Short-term, 138, 280
    convertible into long-term bonds, 220
    disadvantages of financing by, 822
    receivers' certificates, 141
    use for self-liquidating property, 823
  Source of funds for at promotions, 280
NOTES RECEIVABLE, Valuation, 263

O

OBSOLESCENCE, 473
  Causes of, 475
    changes in demand, 475
    changes in social conditions, 476
    changes in style, 475
    invention of new machinery, 475
    labor costs, 475
  Computation of, 478
  Defined, 461
  Estimates, 462
  Machinery, change in demand as cause of, 475
  Reserves for,
    determination of amount, 476
    reason for, 462
OIL COMPANIES,
  Debt, average, 111
  Equipment mortgages, 194
OPEN-END BONDS (See "Bonds, Open-End")
OPEN ISSUES, BONDS (See "Bonds, Open Issues")
OPERATING CONTRACTS, Cancellation, 1079
OPERATING EXPENSES,
  Failure to meet traction companies, 1101
  Necessary,
    defined, 1011
    priority of claims, 1009
OPERATING RATIO OF UTILITIES, 333
OPTIONAL SINKING FUNDS, 606
OPTIONS IN PROMOTIONS, 248
ORGANIZATION (See "Business Organization")
OUTRIGHT PURCHASE, Railroad consolidation effected by, 713

Overexpansion as a Cause of Failure (See also "Expansion, Unprofitable")
Overstatement of Earnings, Significance of, 537
Owner's Net Capital, Definition of, 4
Ownership, Customer (See "Customer Ownership")
Ownership of Corporations Separate from Management, xiii

P

Paid-in Premium, Public utilities, 490
Paid-in Surplus, 487
Par Value Stock, 16
Participating Bonds, 175
Participating Preferred Stock (See "Preferred Stock, Participating")
Participating Stock, 63
Partnerships, Failure, nature of, 904
Part-Ownership, Certificates of, 16
Patent Rights, Payments for,
  Net profits,
    addition to, 512
    deductions from, 512
    royalties, 511
Patented Article, Exploitation, 238
Payment,
  Assessments, 1032
  Bonds,
    enforcement of, 106
    place of, 86
    time of payment, 83
  Cost of borrowed capital, 513
  Debts contracted during receivership, 1017
  Direct expenses incident to reorganization and receivership, 1017
  Floating debt, at reorganization, 1016
  Patent rights, addition to or deduction from net profits, 512
  Sinking fund reserves (See "Sinking Fund Reserves, Instalment Payments")
  Strikers' claims at reorganization, 1012
Pere Marquette Railroad, Refunding operations, 1059
Period of Grace, For prior claims at reorganization, 1012
Personality, Entrepreneur's, Bankers attitude toward, 290
Petition for Appointment of Receiver, 934
Philadelphia Plan of Issuing Equipment Obligations, 190
  General repute, 210
  Legislative status, 210
  Status under receivership, 212
Political Attack, Protection against by manufacturers' associations, 801
Pools, 789
Population, Effect on financial plan of public utility, 323
Preference Bonds (See "Bonds, Income")
Preference Issues, Types of, 35
Preferred Assets Clause, 47
Preferred Stock,
  Bonus in voluntary dissolution, 49
  Classes of, 35
  Conditions of issue, 45
  Contractual provisions, 47
    governing floating debt, 68
    governing increase of, 71
    ostensibly protective, 71
  Convertible, 222
  Cumulative dividends, 57, 62
    in railroad reorganizations, 1069
  Degree of preference, 48
  Direct lien on property, 70
  Dividend provisions, 61
  Dividend rate, 54-57
  Dividends earned but not declared, 76
  Emasculation of original value of, 68
  Equity of stockholders, protection of, 66
  Future issues of other securities, 65
  Industrial,
    depreciation, in value, 1199
    relative value, 1198
    yield, 1198
  Investment strength, 64, 65, 68
    in expansion, priority, 594
    safeguards, 595
    sinking fund for, 596
  Issue of, 296
    rate of, 1202
    cumulative and non-cumulative, 62
  Legal status of stockholder, 45
  Lien on—
    assets, 47
    earnings, 55
  Management rights, 72
  Manufacturing consolidation financed by, 314
  Nature of, 43
  Original purpose, 43
  Participating, 63
    increase of provisions governing, 66
    industrials, 64
    railroads, 64
    variations of, 56
  Preferred assets clause, 47
  Prevention of dissipation of assets, 65
  Privileged subscription, 856
  Profits of investment banker, 430
  Promotion of public utility, 341
  Proportion of dividends to income, 301

PREFERRED STOCK—*Continued*
  Protection from—
    dilution, 64
    floating debt, 66
    future issues of other securities, 65
    note issues, 66
  Protection of equity of, 66
  Protection of lien on assets, 64
  Pseudo-, 44
  Public utility, in promotion of, 341
  Public utility holding company, 773
    percentage owned by public, 777
  Purpose of issue, 43
  Railroad reorganizations, 1065, 1069
  Redemption, 50
    compulsory, 53
  Reorganizations, 50, 1198
  Requisites for high investment rating, 68
  Rights to earnings, 63
  Sinking fund reserve, 53, 596
  Source of capital, 280
  Status of, 34
    at liquidation, 49
  Study of cases, 46
  Treasury, deception of, 434
  Variations of, 61
  Voting privileges, 73
  Weakness of, 64
  Without par value, 17
    advantages of, 17
PREJUDICES, INVESTOR'S, Effect on financial plan, 312
PREMIUM,
  Bond,
    accounting, 513
    adjustments, 516
  Paid-in, public utilities, 490
  Payment on stock redemption, 51
  Sale of stock at,
    as source of surplus, 489
    insurance companies, 491
    status of premium, 492
  Stock, accounting, 489
PREVIOUS EARNINGS, Effect on financial plan,
  At promotion, 308
  Element of time, 311
PRICES,
  Falling,
    common stocks during periods of, 1234
    effect on bonds, 1236
  Monopoly, theory of, 319
  Rising, common stocks as investments during periods of, 1233
PRIORITY OF CLAIMS, Effect of age upon, at reorganization, 1012
PRIORITY OF LIEN, Relation to priority of interest payment, 120
PRIVATE SALE OF CORPORATE PROPERTIES UNDER FORECLOSURE, 965
"PRIVILEGED SUBSCRIPTIONS," 847-869
  Bonds, 847
  Debenture bonds, 856
  Default of rights, 851
  Defined, 847
  Effect on permanent value of stock, 861
  Formula for finding value of, 858
  Length of period, 857
  Preferred stock, 856
  Profits, 865
  Proportionate to holdings, 857
  Realizing on,
    sale of old stock and repurchase of rights, 863
    sale of rights, 862
    subscription to new stock and subsequent sale, 863
  Value,
    formula for finding, 858
    theoretical, 859
    variations subsequent to issue, 860
PRIVATE FINANCE,
  Classification of, vii
  Definition, vii
PRODUCER'S GOODS (See also "Fixed Assets")
  Consumers' goods distinguished from, 260
  Irregularity of earnings, 554
PRODUCTION,
  Cost, inclusions in, 457
  Factors,
    capital, 644, 648
    labor, 644
  Large-scale, supposed economics of, 676, 686
  Maximum, law of balanced return, 653
  Regulation, in integrated industries, 689
  Scale of,
    effect of capital costs, 648
    effect of labor costs, 650
PROFIT AND LOSS,
  Balancing of, in integrated industries, 691
  Business, on investment, 1177
PROFIT AND LOSS ACCOUNT, 454, 456
  Surplus arising from, 500
PROFITS, BUSINESS,
    economic, 1180
    on investment, 1177
    positive, 1184, 1186
      investments carrying, 1186
    positive vs. negative, 1184
    what constitutes, 1183
  Confusion in use of term, 457
  Economic, theory applied to investments, 1181-1204

Profits, Business—*Continued*
  Gross,
    defined, 503
    income from subsidiaries as, 506
  Increased, test of expediency of expansion, 639
  Intercompany holdings, accounting, 506
  Investment bankers', at promotion, 429
  Net, defined, 503
  Privileged subscriptions, 865
  Promotion, 253
  Relative standards, 886
  Subsidiaries, accounting, 507
  Underwriting syndicates, at promotion, 403
Promoters, 235-256 (See also "Promotion")
  Bankers as, 249 (See also "Bankers, Distributing")
  Characteristics of, 251
  Construction estimates of, 245
  Inventors as, 237
  Legal status, 256
  Manufacturers as, 248
  Psychological characteristics, 305
  Trusts, 247
  Utility of, 251
  Work of, 236, 237
Promotion, (See also "Bankers, Distributing," "Financial Plans," "Promoters," "Syndicates, Underwriting")
  Accountant's work in, 287
  Bonds, issue of in, 296
  Capital, sources of, 279
  Defined, 235
  Distributing banker's part in, 278 (See also "Bankers, Distributing")
  Engineer's work in, 286
  Established industry, 241, 246
    comparative effectiveness, 249
  Financial plan, formulation, 294
  Hydro-electric plant, 347, 384
  Industrial combinations, 246
    comparative effectiveness, 249
  Inventions, 238
  Lawyer's work in, 287
  Market for article as factor of, 239
  Massachusetts electric roads, 375
  Negotiation, 356-361
  Options, 248
  Patented article, 238
  Profits, 253
  Public utility (See "Public Utilities, Promotion")
  Railroads, 242, 362-376
    bond issues, 371
    construction companies in, 365-371
      advantages, 369
      evils, 367
Promotion—*Continued*
  Railroads—*Continued*
    contemporary, 362
    early, 363
    electric, 243, 375
    forecasting effect and cost of project, 244
    kinds of, 362
    new, 371
    small, 372
    steam, 242
  Rejection of projects, reasons for, 288
  Risk incident to, 432
  Securities issued at, 300
  Sources of capital for—
    long-term bonds, 280, 281
    stock, 280
  Stages of, 236
  Steps in, 294
  Strife in, 354
  Valuation of a going business for purposes of, 258-277
  Voting trusts at time of, 620
Property,
  After acquired property clause, 116, 117, 119, 130
  As security for bonds (See "Bonds Secured by Property")
  Corporate (See "Corporate Properties")
    private sale under foreclosure, 965
  Cost, effect on—
    financial plan, in promotion, 300
    income of company promoted, 300
  Destruction, reserves for, 524
  Fixed, financing of, 825
  Gift of, surplus through, 497
  Income, basis of, 297
  Operation by distributing bankers, 425
  Preservation of by repair charges and depreciation reserves, 468
  Self-liquidating, financing of, 823, 825
  Tangible, rentals for use of, 508
Property Rights, Royalties for use of, 511
Prospective Earnings of Utilities, at Promotion, 332
Prosperity (See "Industrial Prosperity")
Protective Committees in Reorganization, 4
  Character of, 936
  Creditors', 935
  General reorganization committees, 937
  Membership, 938
  Number of, 935
  Organization, 933, 934, 935
  Personnel, caliber, 938
  Powers, 938, 939
  Responsibilities, 937
  Stockholders, 935
  Work of, adjustment of conflicting interests, 967

PSYCHOLOGY, Effect on viewpoint of economics, 1213
PUBLIC FINANCE, Definition, vii
PUBLIC REQUIREMENTS, Reserves, 531
PUBLIC UTILITIES (See also "Public Utility Holding Companies")
 Bonds, 83
  interest rate, 85
  issue in promotion, 339
  long-term, 96
  property restriction, 92
  restrictions on, 89
  sinking funds for, 595
 Capital stock, 11
 Causes of failure, 913
 Competition, 327, 911
 Consumption per capita, 322
 Customer ownership, 870
 Debentures, 163
 Debt, average, 111
 Dividends,
  expediency of declaring, 585
  rate, preferred stock, 56
  stock, 574
 Earning capacity, tests, 321
 Earnings, estimated vs. actual, 332
 Economic possibilities of region, effect on price, 336
 Equipment obligations, 183
 Estimated earnings, tests, 323-329
 Financial plan of at promotion, 303, 319-361
  bond issues, 339
  common stock issues, 341
  earnings, effect upon, 321
  effect of competition on, 327
  form, 338-343
  future of district, effect on, 327
  note issues, 340
  preferred stock issues, 341
  reorganization, 329
 Financial structure, proportion of stock to bonds, 111
 Improvements, unremunerative, 529
 Inclusions in term, 319
 Income bonds, 168
 Law of diminishing returns, 660
 Massachusetts, sale of stock at a premium, 489
 Monopoly price, 319
 Names, changes in at reorganization, 967
 Negotiations in promotion, 356-361
 Notes, convertible, 220
 Paid-in premium, 490
 Preferred stock,
  degree of preference, 48
  redemption, 51
 Price offered for "ten times net," 335-338

PUBLIC UTILITIES—*Continued*
 Profits, 845
 Promotion, 242
  bond issues, 339
  comparative earnings, 327
  determination of by competition, 327
  economic possibilities, 327
  forecasting effect and cost of project, 244
  history of district, 327
  human factors, in, 354
  industrial activity, 325
  money investment required, 333
  population, 323
 Rates, 319
  for capitalized earnings, 273
 Reorganization, forcible, 904
 Short-term notes convertible into long-term bonds, 220
 Stock, return on, 1193
 Stock dividends, 490, 574
 Surplus, 485
  investment of, 502
 Valuation, 333
  determination by gross earnings, 338
PUBLIC UTILITY HOLDING COMPANIES (See also "Public Utilities")
 Advantages, 757-775
  business dealings with public, 763
  economy in large-scale purchase of equipment, 762
  financial assistance, 767
  soliciting new business, 766
  superior technical efficiency, 758
 As corporate consolidations, 753
 Bonds,
  collateral trust, 772
  debenture, 773
  percentage owned by public, 777
  subsidiaries percentage owned by public, 777
 Capitalization, typical, 775
 Collateral trust bonds, 772
 Common stock, percentage owned by public, 777
 Control over many small companies through, 753
 Debentures, 773
 Earnings, 779
 Financial aid to subsidiaries,
  indorsement of securities, 771
  marketing securities, 770
  money advances, 767, 769
 Financial structure, 774
 Form, 753
 General managers, services of, 759
 History, 753
 Income, gross vs. net, 779

Public Utility Holding Companies—*Continued*
  Intercompany-owned securities, percentage of, 777
  Percentage of owned by public, 777
  Preferred stock,
    issue of, 773
    percentage of owned by public, 777
    subsidiaries', 777
  Rise of, 672
  Sinking fund for bonds, 600
  Stock dividends, 574
  Types of, 774, 780
Published Reports, Verification of, during reorganization, 953
Purchase Syndicates at Reorganization, 1039
Purchases, Quantity, Disadvantages, 682
Purchasing,
  Economy of large scale, by public utility holding company, 762
  Outright, consolidation effected by, 732
Purchasing Power,
  Behind money values, bond vs. stock investments in relation to, 1241
  Return of principle as an equivalent, 1231
  Speculation in, 1232
Pure Interest Rate,
  Defined, 1171
  Effect on market value of investments, 1209
  Industrial cycle and, 1208
  Theoretical nature of, 1174

Q

Quantity Purchases, Disadvantages, 682
Quick Assets,
  As factor of going concern, 262
  Valuation, 263

R

Railroad Bonds (See "Bonds")
Railroad Car Trust, 179
Railroad Consolidations,
  Control, 722, 723
  Effected—
    by lease, 710 (See also "Leases")
    by merger, 712
    by outright purchase, 713
    by stock control, 722
    methods by which, 708
  Forms, analysis, 708
  Historical importance, 706
  Leases (See "Leases")
  Periods of, 734-752
  Scope, 710
  Study, methods of, 707
Railroad Consolidations—*Continued*
  Systems, 741
    factors in formation of, 741
    methods of building, 748
    of systems, 749
  Through lines, 736
Railroad Expansion,
  Historical importance of, 706
  Study, methods of, 707
Railroad Failures,
  Causes of,
    capital distribution of, 922
    excessive competition, 910
    overexpansion, 914
    unprofitable expansion, 914
  Classification, 999
  Events immediately preceding, 934
  Postponed by—
    increase in floating debt, 977
    reduced maintenance charges, 977
  Types,
    fundamental failures of small systems, 1001
    not fundamental of large systems, 1001
    thoroughgoing failures of large systems, 1000
Railroad Promotion, 242, 362-376
Railroad Properties, Extent to which bonded, 115
Railroad Reorganizations, 957-1004
  Arising from thoroughgoing failure of—
    large systems, 1002
    small railroads, treatment of bonds, 1001
  Assessments at time of, 1020
  Atchison, Topeka and Santa Fé of 1894, 990, 992
  Bondholders' rights, protection of, 993
  Bonds, underlying (See "Underlying Bonds")
  Branches,
    importance of liens in reorganization 1048
    refunding first liens, 1056
    underlying bonds, 1048
  Capital adjustment in lieu of, 1074
  Capitalization,
    decrease in, 1088
    increase in, 1086
  Causes (See "Railroad Failures, Causes")
  Change of attitude toward, 992
  Classification, 999
  Compared with industrial reorganizations, 1102
  Conflict of interests, adjustment of, 968
  Divisional Bonds (See "Bonds, Divisional")
  Engineer's report of immediate and future expenditures, 954

Railroad Reorganizations—*Continued*
  Failures as cause of (See "Railroad Failures")
  Financial structure, simplification, 1054
  First mortgage bonds, treatment of, 1047
  First mortgage liens on entire system, 1062
    refunding, 1062
  Fixed charges, reduction (See "Fixed Charges, Reduction of")
  Funds, securing of, 1005-1041
    receivers' certificates, 1013
  General mortgage bonds, treatment of, 1056
  History, 979-992
  Importance of, 975
  Increase in capitalization, 1086
  Involuntary, 941
  Large systems, failures not fundamental, 1003, 1073
    capital adjustment, 1074
    examples, 1073
    refunding of securities, 1073
  Large systems, thoroughgoing failures, 1002
  Leases, 1079
  Money requirements, 1005-1041
  Names, changes in, 966
  Need of spirit of co-operation recognized, 994
  New money, needs for (See "Money, New")
  Pere Marquette, 1052
  Periods of, 979-992
    before 1857, 981
    1857-1884, 982
    1884-1893, 985-989
    1893 and following years, 990
  Present theory of, 993-998
  Principles of, extent to which developed, 975
  Protective committees, 935
  Purposes, 976
    procurement of new money, 978
    reduction of fixed charges, 976
  Reorganization underwriting syndicates (See "Syndicates, Underwriting")
  Securities,
    consolidated and refunding mortgage bonds, 1070
    consolidated and refunding, in reorganizations, 1070
    debentures, 1070
    divisional bonds, 1047, 1052
    first mortgage bonds, 1056
    income bonds, 1065, 1068
    interests of bondholders, 1043
    junior, 1076, 1086
    new, 997

Railroad Reorganizations—*Continued*
  Securities—*Continued*
    notes, 1070
    preferred stock, 1065, 1069
    underlying bonds (See "Underlying Bonds")
  Small railroads, thoroughgoing failures, 1003, 1075
    treatment of bonds in, 1076
  Summary of figures on, 1084
  Syndicates at time of, 997
  Traction reorganizations similar to, 1089
  Traffic accountants' report, 954
  Types, 1002
  Underwriting syndicates (See "Syndicates, Reorganization, Underwriting")
  Valuation, physical, 955
  Voluntary, 1083
Railroad Systems,
  Building, methods of, 748
  Factors in formation, 741
  Of systems, 749
Railroads, (See also "Equipment Obligations")
  Bonds,
    divisional, 117
    interest rate, 85
    restrictions on, 89
    sinking funds for, 593
    terminal, 119
  Capital stock, 10
  Capitalization, effect of reorganization on, 1086
  Collateral trust bonds, types of collateral required, 131
  Competition,
    excessive, 910
    growth of, 744
  Consolidations, end-to-end, 736
  Cummins bill, 709
  Debentures, 161
  Debt, average, 111
  Depreciation, 470
  Dividends,
    cumulative, 58
    expediency of declaring, 588
    rate, preferred stock, 57
    stock, 572
  Electric, promotion, 243
  Failures (See "Railroad Failures")
  Financial plan of at promotion, 362-376
  Financial structure, proportion of stock to bonds, 111
  Fundamental economic value, 115
  Gauge, effect on combinations of adoption of uniform gauge, 742
  Guaranteed stock, 36
  Income bonds, 168
  Influence upon national life, xii

Railroads—*Continued*
  Mortgage bonds, 114, 115
  Mortgages, effect of receivers' certificates on, 1016
  Preferred stock,
    degree of preference, 48
    participating, 64
    redemption, 51
  Promotion (See "Promotion, Railroads")
  Rates for capitalized earnings, 274
  Reorganizations (See "Railroad Reorganizations")
  Reorganized, earning capacity of, 956
  Stock control (See "Control")
  Stock dividends, 572
  Surplus, investment of, 502
  Western Pacific Railroad, bonds, 154
Ratio of Conversions, Convertible bonds, 223
Ratio Operating, Utilities, 333
Real Estate Bonds,
  Decline in value, 1192
  Undesirability of, 1243
Receivers, (See also "Receivership")
  Appointment of, 944, 951
    influence on legal aspects of reorganizations, 939
    petition for, 934
  Certificates,
    assessment of holders, 1030
    effect on railroad mortgages, 1016
    floating debt funded into, 1017
    industrial reorganizations, 1109
    legal authority for, 1013
    nature of, 141
    source of new money, 978
  Duties, 952
  Outside, disadvantages of, 1156
  Reports, 956
  Review of creditors' claims by, 1150
  Work, 952
Receivership, (See also "Receivers")
  Bill of complaint, 951
  Consent, 449
  Contracts, cancellation, 1148
  Court, (See also "Creditors' Committee Reorganizations")
    advantages of creditors' committee receiverships over, 1152-1157
    advantages over creditors' committee receiverships, 1157
      recalcitrant creditors, 1151
      review of creditors' claims, 1150
      setting aside unprofitable contracts, 1148
    creditors' committees vs., 1135, 1148
    disadvantages of outside receiver, 1156
  Friendly, 449
  Investigation succeeding, 953

Receivership—*Continued*
  Payment of debts contracted during, 1017
  Periods of, 946-949
  Philadelphia plan of issue of equipment obligations, status under receivership, 212
  Procedure,
    early, 946
    late, 947
  Traction companies, 1093
    study of, 1094
  Wabash Railway in 1884, 947, 986-989
Redemption,
  Bonds, 100
    rate, 102
  Common stock, Class A, 77
  Preferred stock, 50
    compulsory, 53
Reduction of Fixed Charges (See "Fixed Charges, Reduction of")
Refunding Bonds, 120, 123, 124
  Basis of strength, 126
  First mortgage, liens on entire system, at reorganization, 1063
  Provisions and conditions of issue, 125
Regularity,
  Of dividends, 546
  Of earnings, 301, 554, 557
Reinvestment,
  Of stockholders' surplus in business, 541
  Surplus earnings as source of capital, 813, 814
Rejection of Promotion Projects, Reasons for, 288
Rentals,
  Charges for, 508
  Fixed (See "Leases")
Reorganizations, (See also "Assessments at Reorganization," "Creditors' Committee Reorganizations," "Industrial Reorganizations," "Railroad Reorganizations," "Traction Reorganizations")
  Adjustment of,
    bondholders' claims, 968
    conflicting interests, 968
    creditors' claims, 968
  Advantages of preferred stockholders, 50
  Attorneys, services at, 953
  Auditors, services at, 953
  Bonds, considerations determining treatment at time of, 1042
  Capital, sources of, 815 (See also "Money, New")
  Classifications, according to legal procedure, 940
  Contemporary,
    financial plan, 997
    formal procedure, 997
    results to be obtained, 997

REORGANIZATIONS—*Continued*
  Contracts, cancellation, 1079
  Creation of surplus at time of, 497
  Cumulative preferred stock, 62
  Defined, 901, 905
  Equipment obligations, 214
  Floating debt, 1005
  Foreign bondholders committees, 936
  Importance, 903
  Industrial (see "Industrial Reorganizations")
  Interest, reduction at, 1079
  Internal, readjustment, 933
  Involuntary, 941
    reduction of fixed charges, 1083
  Legal aspects, 902, 939
  Legal formalities, 961, 962
    decree of sale, 963
    judicial sale of old corporation's property, 962
    purchase by reorganization committee, 965
    receiver, appointment of, 944
  Motives governing, 930
    economic, 931
    human or psychological, 930
    legal, 931
  Name, change of, 966
  New York and Erie, of 1859, 983-985
  Period of preliminary investigation. 958
  Period of public discussion, 958
  Plans,
    details, working of, 958
    formulation, 957
    publication, 959
  Practice, perplexing, 901
  Preferred shareholders, control during, 74
  Preferred stock, during, 1198
  Problem, 901-907
  Procedure, 930-974
    importance of securing outward harmony, 958
  Public service corporations, 966
  Railroad (See "Railroad Reorganizations")
  Result of failure, 903
  Securities, determination of sale of, 953
  Stages in, 907
  Surplus arising in, 497
  Syndicates at time of, 400
  Theory of perplexing, 901
  Voluntary, 940
    advantages of, 942
    objections to, 942
  Voting trusts at time of, 622
REORGANIZED PUBLIC UTILITY, Financial plan, 329
REPAIRS,
  Charges, 462
    criterion of, 462
    distinguished from depreciation charges, 467
  Defined, 461
  Period to which chargeable, 463
  Proration of, 465
  Replacements distinguished from, 463
  Reserves, 462, 464
REPLACEMENT CHARGES (See "Repairs, Charges")
REPLACEMENTS, Repairs distinguished from, 463
RESERVES, (See also "Sinking Fund Reserves")
  Bank, surplus as, 485
  Business uncertainties, 533
  Changes in demand, 533
  Classification of, 458
  Depreciation (See "Depreciation Reserves")
  Dividends, maintenance of regular, 549
  Earnings as source of, 534
  Insurance, 525
    investment of, 528
  Net profits, adjustment for, 503
  Obsolescence, 462, 473
  Paid-in surplus, 488
  Principles underlying, 479
  Property destruction, 524
  Public requirements, 531
  Repair charges, 462
  Sinking fund, (See "Sinking Fund Reserves")
    as offset to, 480
  Social requirements, 531
  Special, 518-535
    classes of, 520
    necessity for, 518
  Taxes, 521
  Unproductive improvements, estimates, 532
  Withdrawals, 531
RETAIL BANKERS,
  Promotion work, 410
  Sale of investment securities by, 416
RETAIL STORES (See also "Chain Stores")
  Debt, average, 111
RETURN ON CAPITAL, 265
RETURNS, BALANCED, LAW OF (See "Law of Balanced Returns")
RETURNS, DIMINISHING (See "Law of Diminishing Returns")
REVALUATION ADJUSTMENTS, Reserves arising through, classification of, 458
"RIGHTS" (See "Privileged Subscriptions")
RISK,
  Borrower's mental ability as factor, 1174

RISK—*Continued*
  Borrower's moral character as factor of, 1174
  Distance not a factor, 1174
  Distribution of, 1189
  Economic, burden of, 1181
  Incident to promotion, 432
  Industrial cycle and, 1214
  Legal investments for savings banks, 1193
  Premium,
    effect of change in value on market price, 1215
    nature of, 1174
  Recognized estimate, 1211
  Social value of enterprise as factor, 1174
ROYALTIES, ACCOUNTING, 511
RUBBER, INDUSTRY, Debt, average, 111

S

SALE OF ASSETS,
  Creation of surplus by, 493
  Treasury,
    in industrial reorganization, 1110
    source of new money, 1018
SALE OF CORPORATE SECURITIES (See "Securities, New, Sale of")
SALE OF STOCK, In industrial reorganizations, 1110
SALES, CONDITIONAL, 179
SALESMEN,
  Bond, training, 414, 417
  College men as bond, 412
SAVINGS,
  For income, 1170
  For protection, 1169
  Reasons for, 1169
"SAVINGS BANK BONDS," 108
SAVINGS BANKS,
  Legal investments for,
    comparison with other classes, 1193
    risk in, 1193
SCALE OF PRODUCTION,
  Effect of capital costs on, 648
  Effect of labor costs on, 648, 651
SCHALL, FOSDICK V., Rule in, regarding priority of operating expenses over capital charges, 1008
SCRIP DIVIDENDS, 563
SCRIP, Use of for partial payment of new stock, 849
SECOND MORTGAGE, 121
SECURITIES (See also "Bonds," "Equipment Obligations," "Preferred Stock," "Railroad Reorganization, Securities," "Securities, New, Sale of," "Stock")
  Classes found at railroad reorganizations, 1047
  Compromise, 34

SECURITIES—*Continued*
  Customer ownership, 870-884
  Contingent charges choice of in refunding bonds, 1065-1072
  Exchange of, through investment banker, 843
  Fraudulent, sale of, 436
  Higher class, treatment in traction reorganizations, 1099
  Highly speculative enterprise, sale of, 449
  Hydro-electric plant, marketing, 350
  Included in financial plan, 300
  Issued at promotions, 300
  Junior,
    refunding of at reorganization, 1070
    treatment of in railroad reorganizations, 1070
    treatment in traction reorganizations, 1098
  Kinds of, 8
  Low grade,
    appeal to avarice in marketing, 438
    methods of sale, 434
    sucker lists, 449
  Market for, effect on financial plan, 296, 302
  Reorganized corporation,
    determination of sale of, 953
    sale of, 1019, 1110
    uses to which put, 998
  Sale of (See "Securities, New, Sale of")
  Short-term, as source of capital in promotion, 280
  Subsidiaries' aid rendered by parent,
    indorsement of, 771
    marketing, 770
    purchase of, 767, 769
    scrip, uses for partial payment of, 849
  Taxable vs. non taxable, 1196
SECURITIES, NEW, SALE OF,
  Block sales, 351
  By investment bankers, 284, 408
  Cost, estimating, 240
  Direct, by issuing company, 426
  Effect of competition between bankers on, 842
    investment, 408-431
  Low grade, 432-450
    appeal to avarice in, 438
  Railroad reorganization, 1038
  Permanent obligations as source of capital, 818
  Subsidiaries securities by public utility holding company, 770
  Temporary obligations as source of capital, 818
  To bank, source of capital, 828-846
  To bankers, 1019
    advantages, 834

Securities, New, Sale of—*Continued*
  To bankers—*Continued*
    assurance of successful sale, 837
    economy of, 842
    effect on width of market, 839
    formation of banking connection, 836
    in expansion, 828-846
  To stockholders,
    in reorganization, 1110
    miscellaneous considerations, 854
    requirements,
      expansion justifiable, 852
      old stock widely held, 850
      price, 847
      proper use of new capital, 852
  Under foreclosure, 965
Security,
  Collateral deposited as, 127-131
  Credit as basis of, 141 (See also "Bonds Secured by Credit")
  Property as basis of, 112 (See also "Bonds Secured by Property")
  Railroad bonds, 115
  Uncertainty of debenture bonds, 163
Security Holders, Non-assenting, in reorganizations, 967
Selection of Enterprises by Investment Bankers, 286
Self-Liquidating Property, Financing of, 823, 825
Selling Department of Distributing Bankers, 412, 417
Selling Syndicates, 390-398
  Features of, 396
Serial Bonds, 610
Shares,
  Common, treatment in traction reorganization, 1100
  In associations, 12,
  In trusts, 13
  Preferred,
    objections to customer ownership, 875
    treatment in traction reorganization, 1100
Sherman Anti-Trust Act, 666, 667, 671
  Railroad consolidations under, 752
Shipping Companies,
  Successful type of industrial combination, 701
Short-Period Investment, 1205, 1224
Short-Term Bonds, 94
  Source of capital in promotion, 280
  Source of funds, 94
Short-Term Borrowings, 813-827
Short-Term Notes, 138
  As source of capital in promotion, 280
  Disadvantages of financing by, 822
  Financing by, use of self-liquidating property, 823
Short-Term Notes—*Continued*
  Issued in anticipation of bonds, 818
  Market, source of funds for, 280
  Public service, convertible into long term bonds, 220
    purpose of issue, 230
  Receivers' certificates, 141
  Secured, 138
Short-Term Securities,
  Market, source of funds, 281
  Source of capital in promotion, 280
Sinking Fund,
  As offset to reserves, 480
  Bonds, 100, 592, 602
    definition, 100
    mining, 602
Sinking Fund Reserves,
  Dividend disbursements as basis of, 604
  Industrials, 595
  Instalment payments,
    business conditions as basis of, 601
    optional, 606
    proportional, 599
    regular, 598
    varying, 599
  Investment of, 606
  Management, 606
  Methods of operation, 597
  Mining bonds, 602
  Net earnings as basis of, 604
  Permanent debt, effect of attitude toward, on, 615
  Preferred stocks, 53, 596
  Provisions of, compliance with, 612
  Public utilities, 595
  Purpose, 481, 597
  Railroad bonds, 593
  Reasons for, 592
  Timber bonds, 603
  Treatment of, 592-616
  Use of for improvements, 609
  Value of from investor's standpoint, 613
Six Months' Claims, Treatment of, in reorganizations, 1012
Size of Business, Weakness of industrial combines due to, 680
Skilled Labor, Success of industrial combines not requiring, 688
Socialism, Fallacies of, 883
Special Reserves, Necessity for, 518-535
Specialty Manufacturing Business,
  Debt, average, 111
  Financial plan, 313
Speculation,
  Appeal to, in marketing low-grade securities, 440
  In purchasing power, 1232
  Motive of expansion, 637
Speculative Bonds, 110

SPECULATIVE ENTERPRISES, Sale of securities, 449
STATE-OWNED MONOPOLIES, Economy of fallacies of, 686
STEEL MANUFACTURING, Debt, average, 111
STOCK (See also "Association Shares," "Bonds," "Certificates of Part Ownership")
  Advantages over bonds in expansion, 834-836
    better borrowing facilities at banks, 836
    better investment market in state taxing bonds but not stock, 836
    greater flexibility in purchase and sale of property, 836
    represent contingent rather than fixed charge, 834
  As source of capital in promotion, 280
  Bonds convertible into, 221
  Bonds vs. in relation to purchasing power of money values, 1241
  Capital, 8-33
    arbitrary decrease of, as source of surplus, 499
    banks, 10, 11, 12
    definition of, 5
    import of, proprietary interest, 8
    premium on, 489-493
    surplus, paid-in as, 488
    trust fund conception of, 26
    types, 9
  Common,
    as investments during periods of rising prices, 1233
    Class A, 34, 74, 76
    classified, characteristics of, 34, 74, 76
    control by means of, 44
    double conversion, 228
    during down swing of industrial cycle, 1216
    effect of widespread ownership on dividend declaration, 589
    fundamental conception, 8
    in periods of falling prices, 1234
    in promoting new invention, 241
    in promotion of,
      public utilities, 341
      small railroads, 371
    issue of, 296
    manufacturing enterprise financed by, 313
    nature of, 9
    practical consequences of industrial cycle theory, 1220
    public utility holding company, percentage owned by public, 777
    public utilities, return on, 1193
    stability of, empirical tests of theory, 400
STOCK—*Continued*
  Common—*Continued*
    types of, 9
    voting privileges, 73
    vs. bonds, 1235
    with par value, 16
    without par value, 17-33
  Control (See "Control")
  Differentiated from bonds, 34
  Disadvantages of in expansion (See "Bonds Advantages over Stock in Expansion")
  Distinguished from bonds, 34
  Donated, 497
  Financing of permanent improvements by, 827
  Full paid, 16
  Guaranteed, 34, 36
    responsibility of holder, 38
    vs. guaranteed bonds, 37
    yields, 40
  Increased sale of by bankers, 844
  Insurance companies, sale at premium, 491
  Issue,
    expansion through, 843
    promotion of hydro-electric plant, 354
  Market, source of capital, 281
  Massachusetts public, utilities, sale at a premium, 489
  Minority ownership, as basis of community of interest, 806
  No par value, 17-33
    accordance with economic theory, 32
    advantages, 27-33
    assessment, difficulty of, 21
    Class A common, 77
    conformity to fact, 27
    confusion arising from, 18
    depression of price, 19
    disadvantages, 18-27
    fraud, encouragement of by, 23
    injustice to investors, 22
    stimulus to study by investor, 30
  Participating, 63
  Preference issues, types of, 35
  Preferred (See "Preferred Stocks")
  "Preferred assets" clause, 47
  Premium on, accounting for, 492
  Privileged subscriptions (See "Privileged Subscriptions")
  Proportion of to bonds, 111
  Pseudo-preferred, 44
  "Rights" (See "Privileged Subscriptions")
  Sale of,
    at premium as source of surplus, 489
    at premium, status of premium, 492

Stock—*Continued*
  Sale of—*Continued*
    during expansion by bankers, prevalence of, 844
    in industrial reorganizations, 1110
    new, through bankers, 844
  Source of capital for promotion, 280
  Subscriptions, privileged (See "Privileged Subscriptions")
  Taxation, 111
  Treasury, deception of, 434
  Types of, 9
  Without par value, 17-33 (See item, "No par value," above)
STOCK DIVIDENDS, 565
  Industrials, 570
  Market manipulation, 568
  Principles controlling, 567
  Public utilities, 490, 574
  Railroads, 572
  Sound credit position a prerequisite, 568
STOCKBROKERS, Investment bankers distinguished from, 282
STOCKHOLDERS,
  Assessment of (See "Assessments at Reorganizations")
  Preferred,
    participation in management, 72
    protection against dissipation of assets, 65
  Protective committee for (See "Protective Committee")
  Sale of new securities to (See "New Securities, Sale of to Stockholders")
STOCKHOLDERS' COMMITTEES,
  Organization, in reorganization, 934, 935
STOCKHOLDERS' SURPLUS,
  Proportion reinvested in business, factors determining, 536
STREET RAILWAYS (See "Traction Companies")
STRIKERS,
  Adjustment of claims, in reorganization, 967, 1017
  Creditors' committees, difficulty of dealing with, 1159
  Legal status, in reorganizations, 969
STYLE, Changes in, effect on obsolescence of machinery, 475
SUBSCRIBERS TO UNDERWRITING SYNDICATES, 401
SUBSCRIPTIONS, PRIVILEGED (See "Privileged Subscription")
SUBSIDIARIES,
  Accounting for profits, 507
  Assumed bonds of, 144
  Collateral trust bonds of, 130
SUBSIDIARIES—*Continued*
  Financial aid rendered by parent,
    indorsement of securities, 771
    marketing securities, 770
    money advances to, 767, 769
  Profits, accounting, 507
  Provisions governing guarantee of securities of, 133
  Securities of, 507
    accounting, 600
    accounting for losses arising from guarantee of, 510
    dividends as gross profits, 506
    percentage owned by public,
      bonds, 777
      preferred stock, 777
  Surplus account, 498
SUBSTITUTION COST, As basis of value, 259
"SUCCESS,"
  Defined, 885
  Relative, standards, 886
SUCKER LIST, 166
SUGAR MANUFACTURERS, Debt, average, 111
SURPLUS,
  Banking, 485
    investment of, 502
  Capital surplus account, 495
  Computation of, 484-502
  Defined, 484
  Disposition of, 518
  Earnings as source of, 500
  General charges of loss of guaranteed interest of subsidiary to, 510
  Gift of property as source of, 497
  Industrial companies, 486
  Investment of, 500
  Investment strength, 501
  Kinds of, 484
  Need of in business, 541
  Origin, 484
  Paid-in, 487
    distribution from, 488
  Public utilities, 485
  Reinvestment of, as source of capital, 813, 814
  Reorganization as source of, 497
  Sale of assets, as source, of, 493
  Sale of stock, at premium as source of, 489-493
  Sources,
      arbitrary decrease of capital stock, 499
    donated stock, 497
    earnings as, 500
    from which dividends may be paid, 500
    reorganization as, 497
    sale of assets as, 493
    sale of capital assets above cost, 493

SURPLUS—*Continued*
  Sources—*Continued*
    subsidiary taking over property previously considered without value, 498
  Stockholders', 536
  Use of, 500
SYNDICATES,
  Assistance from,
    at time of financial distress, 400
    at time of reorganization, 400
  Compensation of at reorganization, 1036
    purchase of securities by, 1038
    services, 1036
  Loan, 1040
  Managers of at promotion, 383
  Purchase, 1039
    securities taken by, at reorganization, 1038
  Reorganization underwriting, 400, 1034
    compensation, 1039
    functions assumed by bondholders, 1037
    railroads, 1034
  Responsibility, 389
  Selling,
    at promotion, 390-398
    features of, 396
  Underwriting, 378-407 (See also item, "Reorganization Underwriting," above)
    as insurance companies, 406
    as insurers, 385
    classification of, 380
    compensation of at reorganization, 1036
    defined, 378
    essential service, 398
    established enterprises, 381
    forms, 379
    functions in connection with sale of new securities by corporations to stockholders, 867
    hydro-electric promotion, 384
    loans, 399
    origin, 378
    profits, 403
    selling, 390-398
    selling features of, 396
    subscribers, 401
SYSTEMS OF RAILWAY SYSTEMS, 749

T

TANGIBLE ASSETS,
  Effect on financial plan, 296
  Net, banks, 485
TAX RESERVES, 521
TAXATION,
  Bonds, 11, 111
  Equipment obligations, 188
  Income, 579
TAXATION—*Continued*
  Massachusetts, effect on public utilities, 491
  State,
    bonds, 313
    effect on sale of new securities, 302
  Stock dividends, 579
TECHNICAL EFFICIENCY OF PUBLIC UTILITY HOLDING COMPANIES, 758
"TEN TIMES NET" PRICE, Offered by promoters of public utilities, 335-338
TERMINAL BONDS, 119
TERMINAL JOINT BONDS, 156
TEXTILE MILL REORGANIZATIONS, 1113
THIRD MORTGAGE BONDS, 121
TIMBER BONDS, Sinking fund for, 603
TOBACCO INDUSTRY, Debt, average, 111
TOOLS, Automatic, combinations of industries using, 688
TRACTION COMPANIES,
  Failure, causes, 1089
  Investment in, 1227
TRACTION COMPANY RECEIVERSHIPS, 1093
  Study of, 1094
TRACTION REORGANIZATIONS, 1089-1101
  Junior securities, 1098
  Operating expenses, failure to meet, 1101
  Railroad reorganizations similar to, 1089
  Securities, higher class, 1099
  Types,
    complex, 1096
    simple, 1095
TRADE ASSOCIATIONS,
  Organization, 793, 799
  Purposes, 799
TRADITIONS OF MARKET, Effect on financial plan, 302
TRAFFIC ACCOUNTANTS, Reports of at time of railroad reorganizations, 954
TRAFFIC INTERCHANGED, Computation of contingent rental on basis of, 714, 715
TREASURY ASSETS,
  Sale of,
    as source of new money, 1019
    at reorganization, 1110
TREASURY STOCK, Deception of, 434
TRUST COMPANIES,
  As investment bankers, 282
  Capital stock, 10
TRUST FUND, Investments, 390
TRUST SHARES, 13
"TRUSTS" (See "Industrial Combinations and Consolidations")
  Development of from trade associations, 793
  Massachusetts, 13
  Promoters of, 247
TRUSTS, VOTING (See "Voting Trusts")
TURNOVER, Capital, comparison of, 542

U

Underlying Bonds, in Railroad Reorganization,
  Bonds, 1068
  Branch lines at time of reorganization, 1048
  Classes of, 1051
  First and subsequent mortgages on unimportant branch lines, importance of, 1051
  First mortgage bonds, treatment of, 1056
  First mortgage on main line,
    exchange basis, for new securities, 1052
    importance of, 1051
    refunding of, 1051
  Junior bonds, refunding of, 1058
  Late liens on main line and liens on important branch lines,
    importance of, 1051
    refunding of, 1056
  Main line and divisional mortgages,
    economic value, 1050
    refunding of, 1048
  Paying off of, 1052
  Treatment of, 1047
  Undisturbed, 1053
Underwriting Syndicates (See "Syndicates, Underwriting")
Unearned Dividends, 8
  Payment as a fundamental cause of failure, 922
  Payment from surplus, 486
Unearned Interest, Payment of, 922
Unprofitable Expansion (See "Expansion, Unprofitable")
Unprofitable Improvements,
  As deferred assets, 533
  Banks, 529
  Cost, accounting, 531
"Upset" Price at Reorganizations, 964
Utilities,
  Local, early promotion, 329
  Public (See "Public Utilities")

V

Valuation (See also "Revaluation Adjustments")
  Basis of value, 259
  Capitalization of net earnings, 265
  Consumers' goods, 262
  Earning power as basis of, 264
  Estimate, by promoters, 268
  Going business, for purposes of promotion, 258-277
  Producers' goods, 262
  Public utilities, 333
  Quick assets, 263
  Railroads, during reorganizations, 955
Value,
  Basis of, 115
  Criterion of,
    banks, 486
    public utilities, 486
  Going concern,
    basis of, 262
    factors of, 262
Vanity, Appeal to, in marketing low grade securities, 445
Vertical Combinations, Successful type of industrial combination, 689
Voluntary Associations, 13
Voluntary Reorganizations, 940
Voting Privileges,
  Bondholders, 104
  Class A common, 77
  Preferred stock, 73
Voting Trusts, 617-629
  Advantages, 623
  Banking, 621
  Certificates, 618
  Control, insured by, 620
  Creation, 618
    for benefit of foreign security holders, 621
  Dissolution decree, 619
  Early examples of, 617
  Formation, 618
  Judicial decree, carried out by, 619
  Legality, 626
  Origin, 617
  Promotions, at time of, 620
  Public policy toward, 628
  Purpose, 617, 619
  Reorganization, at time of, 622
  Responsible management, 623
  Restrictions on, 623
  Termination, 626
  Value of, 628

W

Wabash, Receivership of 1884, Historical significance, 947, 986-989
War, Effect on price of capital, 1172
"War Orders," Profits on, 308
Warehouse Bonds, 120
Warrants, Fractional, 230
Wasting Assets, Adjustments, 460
  Classification, 460
  Compensation, 460-483
  Depreciation (See also "Depreciation") theory, 466
  Obsolescence, 473 (See also "Obsolescence")
  Repair charges (See "Repairs, Charges for")

WEALTH OF REGION, Effect upon financial plan of public utility, 325
WEAR AND TEAR, Adjustments for, 460
WEBB ACT, Effect on foreign trade corporations, 704
WESTERN PACIFIC RAILROAD, Bonds, 154
WHARF BONDS, 120
WHARF JOINT BONDS, 158
WHOLESALE BANKERS, 408
WHOLESALE BANKING HOUSES, Function, 397
WHOLESALE BUYING, Chain stores, 698
WORKING CAPITAL,
  As factor of going concern, 262
  Importance of, 1102
  Lack of as cause of failure, 925
  Need of at reorganization, 1017

Y

YIELD,
  Assumed bonds, 147
  Equipment obligations, 185
  Good vs. bad investments on basis of, 1188
  Guaranteed stock, 40
  Industrial bonds, average, 1197
  Industrial preferred stock, average, 1198
  Investment, factors affecting, 1216

1. serial Bonds maturity
2. issue more common stock to buy back bonds when earnings are good.